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FRANK HERBERT PALMER, A. M., EDITOR

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EDUCATION

Devoted to the Science, Art, Philosophy and Literature of Education

VOL. XXXIX. MAY, 1919 NO. 9

The Classicists and Nature's Law

BY HENRY LINCOLN CLAPP, MASTER EMERITUS,
GEORGE PUTNAM SCHOOL, BOSTON.

ON January 2, 1918, I read a summary of an interesting speech made by Professor Andrew F. West, dean of Princeton University Graduate School, and published in the Boston Evening Transcript. It reminded me forcibly of the nature of my classical courses at Phillips Exeter Academy and Harvard College half a century ago.

After reading Professor West's "Our Educational Birthright" I made inquiries of some recent college graduates in an attempt to get a fair idea of the improvement that has been made in teaching the classics since my day and generation, but failed to find improvement. I have read much about what ought to be done, in the writings of various college presidents. Some classicist who has carried his improved methods of teaching beyond the experimental stage should state in print how he has done it.

By referring to the character of classical instruction some years ago we may get a means of determining how much improvement has been made in these days. Senator George F. Hoar has explained the kind of classical instruction in vogue in 1842 when he was a student at Harvard. In a magazine article published in 1900 he wrote: "There was nothing in the teaching of Latin or Greek to inspire the student with any love of Greek or Latin literature. The professor never pointed out its beauties or illustrated the text in any way. The students in succession were called upon to construe a few lines, reading one or two Greek words, and then

giving their English equivalents. The time of the good scholars was wasted, or very largely wasted, as I have said before."

At Phillips Exeter Academy in 1864 the methods of instruction were truly archaic, unless I misunderstand what that means. Yet the school had held the highest reputation for excellence during many years. In the poorest country school I ever attended the pupils were required to spell long columns of words without any concern as to their meaning or use in oral or written expression. Now, that would be called archaic. But at Exeter the boys had to learn fifty or sixty Greek or Latin rules "by heart" at one lesson and recite them perfectly with no idea of what they meant or where to apply them. The terminations in Latin prosody formed a similar dose. We learned for a lesson ten pages of Greek history *verbatim et literatim* and recited them in the same way, each reciter being required to begin precisely where the last reciter left off; if he failed to do so, it was said that he "flunked," and he was marked accordingly. No one was ever asked what the text meant, and our ideas of Greek civilization were a mixture of nebulosity and cosmogony. Dried leaves were succulent in comparison. Interest was never mentioned nor felt.

There was never an attempt on the part of any professor to enlighten the boys on the scope, relations and bearings of the studies, no inspiring talks, never an explanation of a mathematical problem, no reference made to the great value of Latin and Greek in scientific terminology—botany, mineralogy, geology, chemistry, mycology, and conchology—never a hint of their value in English composition. I never discovered that any one of the professors, either at Exeter or Harvard, knew anything about science. That was reason enough for me why they never made connections. I wonder how much improvement on that static condition has been made by this time.

To read Latin was easy for me, and so I continued to study it to the end of the college course, not knowing then that I ought to have been doing some better work, one which contributed to my success in school work, whatever that may have been, more than any other work, that is, simply schooling myself in science. I might easily have become a teacher, good or bad, of Latin and lim-

ited myself to that without realizing that I had missed much that was essential to my success and happiness in life. The "preparatory course" is the cause of that condition altogether too often; but the classicist does not realize it. If ignorance is not bliss, it does not trouble us much until by some chance our eyes are opened.

In consequence of my classical teachers' ignorance of science and failure to correlate their work with their environment, the living, growing world all around them, I did not discover my natural aptitude till nearly ten years after graduation, and then by a mere chance. One of my classmates, at least, had the same experience. We had been trying so long to get "visions" through the medium of books, so long to visualize the impossible in classic regions, where we had never been and never expected to go, that we could not see intelligently the earth under our feet. When I mingled with people who knew the world about them, Nature, if you please, I did not feel "free"; far from it; I felt restrained, ignorant, and uncomfortable, in spite of my college diploma.

The long preparatory and college courses had stifled my sense of freedom. I had become habituated to having work cut out for me, to dispensing with initiative, and to being trained in a prescribed channel. The remnants of freedom were to be found only in the clubs where I could exercise my preference in theatricals, debating, singing, and playing on musical instruments. But in the course of ten years after graduation the old sense of freedom came back. I awoke from my dreams. I set myself harder tasks than any of those which teachers had set for me. I had a lively interest in doing them, which holds now as ever since that awakening.

For example, I will refer here to one branch of science that I imposed on myself and have studied seriously for more than forty years, especially during my summer vacations in many mineral localities extending from Cape Breton and Nova Scotia to California, and the wilds of Canada to the West Indies. Within those limits visits were made to the Basin of Minas a number of times, New Brunswick, the New England States, New York, the Calumet and Hecla copper region, the Ishpeming and Negaunee iron region, and the silver and gold regions of Colorado. To find numberless

beautiful specimens *in situ,* where they grew, for they did grow and are still growing, was a pleasure and a remembrance that my classical course "could not hold a candle to." It required the hardest kind of work, as all intensely interesting work does, but I have much to show for it in my cabinets, and much in Dartmouth College, the Boston Society of Natural History, the Bridgwater State Normal School, and the Children's Museum at Jamaica Plain, Mass. And this sort of altruism I never could squeeze out of my classical course, good as that was considered at the time. Nature's mineral gifts, beautiful in color, form, and association, move me to get up and do something as my classical course always failed to do. It was the same with botany, fernology, and mycology, all self-imposed: and what resources for pleasure they have been for many a year, summer and winter! They keep me *stirring* and referring to my books when necessary, by no means all the time.

But the limitless uses of metals and minerals concern the entire world. The mineralogist studies mining, smelting, analyzing, molding, and all sorts of works in iron, copper, zinc, clay, medicinal elements, and so on *ad libitum.* Does the classicist see anything broadening and liberalizing in all that? Or is he quite satisfied with limiting his attention to states of mind?

Another stage of mineralogy that demands the closest observation and the soundest judgment of form is crystallography, one of the grandest illustrations of "Nature's law" in geometrical forms. One writer says, "Nature was the first geometrician." If there is anything in the way of angles and planes and their numberless variations and relations more intricate and perplexing in geometry or trigonometry, I did not discover it in my study of the latter subjects. Geometry is merely on the threshold of crystallography, which I would suggest as a college study to discipline the mathematical faculties. All crystals may be referred to one of six systems, but to do it is over another hill of difficulty beyond that of reading the classics. In one class only, the carbonates, there are several hundred forms of beautiful crystals.

Finally we come to the chemical analysis of minerals, by means of acids, salts and blowpipe, to determine their composition, which

calls into exercise the worker's greatest powers of observation, manipulation, and judgment.

Who, then, can say from his own knowledge that I did not get more power for scientific observation, close analysis, just comparison, adequate correlation, and a clearer discernment of Nature's laws than I ever got from my study of the classics? Whatever the classicist may say I must insist on being my own judge of that. But probably not one classicist in a thousand, at least, can comprehend this brief reference to this single branch of science, if he can so much as apprehend it. During my long experience in school work, I have never met one who could.

Why the classics and science should be so much like oil and water I never could understand. I prefer the emulsion with considerable lemon in it. Water seems to represent roughly the classics, with steam always up and sputtering about what should be studied to prepare for life and a living. Science keeps an unruffled surface with an inclination to smooth the troubled waters with half a chance; classicism is undeniably old and seems to be growing irascible; while science keeps calm, as if conscious of being able to take care of itself without unionizing.

But mineralogy is only one of many branches of science that will serve to develop ability to see accurately, compare properly, and judge wisely—such as botany, mycology, conchology, entomology, and geology. By means of such material that method which Agassiz valued so highly, the "comparateef," may be used successfully even in elementary schools.

Moreover, having seen thousands and thousands of elementary school children carry on such work in the school room, with the natural accompaniments of drawing and painting, with more zeal and enthusiasm than was ever seen in the study of anything else in the curriculum during a quarter of a century, I cannot take an estimate of the value of such work as a developer, a satisfyer, and a life asset, from one who knows nothing about it in a practical way, whatever mere literarians may claim as to the knowledge that is worth most to life and the pursuit of happiness. "If you want to know a thing you must live with it." I know well enough that classicists, with here and there a very rare exception, have

not had my experience and cannot take my point of view, however much or little their view points of Greece and Rome may assist them.

It is pitiful that the opportunities for operating ethics, æsthetics, and altruistic relations which Nature presents to us on all sides are unrecognized by the devotees of books, the classicists especially. The beauties of line, form, composition, color, harmony, and tone of the seasonal landscapes, in the flowers of the fields and garden, in the plumage of birds and butterflies' wings, have no charm for them. They know not the gospel spirit of the Nature lover, the "good news," that must be told to others to do its perfect work, the living and working together, the mutual giving and taking, and the real breath of freedom in the open.

The classicists cite the classics as resources for happiness in old age or periods of illness.

My acquaintance with Nature in her various forms—flowers, ferns, mushrooms, birds, shells, minerals, and subjects for pictures on land and sea—keeps me out-of-doors all summer and furnishes me with most interesting studies and memories all winter; so I have no reason to envy the happiness of Lowell, the classicist, the great man of letters, who for too brief a period was my instructor, and who, as Howells wrote of him in 1900, "summer and winter sat there among his books, seldom stirring abroad by day except for a walk, and, by night yet more rarely."

Last summer, in the last year of my four score, my outings lasted from morning till evening nearly every pleasant day, from five to eleven miles away, collecting minerals, ferns, and rare flowers, and painting mushrooms and landscapes to make me live over again the bright summer in the dull winter. My books, literary and scientific, collected just when I needed them in my winter studies during many years, supplement my summer acquisitions to my satisfaction. It seems to me that I have greatly the advantage of the mere literarian as regards "something to fall back upon." If that is not in view of a life and a living, a means of helping and sharing with somebody else, as I always do, will the classicist tell me something better from his own experience?

Mr. Hamilton W. Mabie in his essay on Nature and Culture

says: "Relationship with Nature is a resource of inexhaustible delight and enrichment; to establish it ought to be as much a part of every education as teaching of the rudiments of formal knowledge; and it ought to be as great a reproach to a man not to be able to read the open pages of the world about him as not to be able to read the open page of a book before him."

What opportunity for such acquirements have preparatory school boys ever had, or will they have?

The classicists seem to have little love for the sciences or utilitarian studies. There is no doubt that in the world's work constructive ability is of great importance, and those students who have aptitudes for science or construction should aim for the technical schools before they are caught in the meshes of the "prep" course. To require inexperienced boys to study the classics and ancient history intensively from the age of twelve through their teens, at least, before they have had proper opportunities to get acquainted with the geography, fauna, flora, and industries of their own living region, within a radius of fifty miles, is something to think of seriously. If they once get into the "prep" course their chances of becoming acquainted with their environment, of getting a fair amount of ideas from real things and processes will be small indeed. In the very first place they should have proper opportunities to get at nature study, or natural science, while they are young and their minds receptive and plastic. President David Starr Jordan says, "If they do not learn to observe in their youth, they will never learn, and the horizon of their lives will always be narrower and darker than it should have been." President Eliot never neglects a good opportunity to give advice along the line of science, of which he was formerly a professor at the Institute of Technology. The union of the classics and science aided him in becoming not only an orator but a man of sound judgment.

A Boston paper recently stated that a commission of two hundred fifty members had been appointed to consider the reorganization of secondary schools in this country. That should include preparatory as well as high schools. Among many subjects to be studied science was mentioned. But to defer the study of science until pupils enter high and preparatory schools is to jeopardize the

most successful study of science. Elementary pupils are none too young to indulge in their natural tendency to collect science material on which the success of the work largely depends. They will observe, talk over, compare, and classify objects when no set lessons are given to them. Objects excite their self-activities. Working with them they have a motive for correct spelling. The practice of labeling neatly and correctly develops a faculty that may be applied in many ways. It is easy for pupils of all elementary grades to describe simple objects, plant forms, minerals, shells, etc. If they can have the opportunity to draw and paint them, their pleasure and interest will increase. Interest does not have to be worked up. Such work ought to be a part of every child's "educational birthright." Moreover, the very easiest way to start and carry on systematic work in English composition is by means of describing the appearance and properties of common and simple natural objects. I have demonstrated this, many years.

Dean West thinks that "Nature's laws" should not apply to college students. He says with fine scorn, "Nature's law—for infants, but not for men!" 'Do what you like,' and 'do what you please' in studies as well as in conduct will be discarded as a devil's motto."

What self-respecting preparatory school ever gave its students such a motto or disposition and sent them to college?

He continues, "The captivating notion, happily now going out of vogue, that the student in school or college should study what he likes, when he likes, as he likes, if he likes, must be interned or interred."

How could students with such ideas and corresponding habits ever have been prepared for college and allowed to remain there?

He adds, "To all so-called 'free elective systems' which are no systems at all (?), we must promptly say, 'Good bye' and 'Good riddance.'"

That might refer to Harvard University, because the elective system was introduced there in 1869, my last year there, and is still in operation. But because it cannot be operated successfully in one college is no satisfactory reason that it cannot be in another; and the allegation of one inexperienced in such a system cannot have much weight.

As to Nature's laws, can we think of anything more stable, powerful, and comprehensive? Heaven and earth and all that in them is are completely and eternally dominated and guided by them. All life and motion depend on them. In them we live and move and have our being. They are divine. How, then, can feeble man eliminate himself from their control any more than an infant? What, then, is the sense of the expression, "Nature's law—for infants, but not for men"?

From long experience I realize that there is a notion among teachers, and probably among professors, that they can give the Creator some points on His creations by what they call "education," which means to them, I know not what. But they claim too much; they magnify their works unduly. The child, like a tree, is a miracle. Man can feed, water, train, and sometimes improve the environment of both, but he cannot put the life-growing principle into either, nor develop either, whatever his claims. By his "education" he frequently hinders organic evolution without knowing it. He cannot see deeply enough. The tree and the child grow day and night; each develops itself by "Nature's law." That is the inscrutable and incomprehensible miracle. 'Cephas may plant and Apollos may water, but God alone giveth the increase." "Therefore, render unto Cæsar the things that are Cæsar's and unto God the things that are God's." Teachers at their best can do only the works of Cæsar, but more often they do much less. And, yet, unquestionably that work is of inestimable value.

"Nature's law" in enabling every animate thing from a blade of grass to a Roosevelt to develop itself night and day and to adapt itself to changing conditions in some degree does not excite the curiosity or interest of the classicists enough to cause them to even mention it to their pupils. They have neither time nor inclination. They have not seeing eyes except for books. They open not the eyes of their legions of pupils to the near and the concrete, but compel them to pierce the remote and illimitable future by means of books, the signs of ideas, the guide boards, not the actual, adjacent road which they should travel first, not first-hand ideas, but tremendous heaps of traditional ideas, the history of the race in an unknown land and in an unknown tongue. As of old they con-

tinually violate "Nature's law" in learning—from the concrete to the abstract—apparently without knowing it. The classicist takes the remote first, caring not how the near comes, nor if it ever comes. Nature prescribes that children shall creep where they are before they walk, and walk where they are before they run; but "prep" boys are forced over the history of the human race and to dig up the roots of their own language before they have learned to avoid "different than that," between you and I," "We was there," etc., before they can write a passable composition in English. "Haste makes waste." Then the regular thing to do is to blame the lower schools.

The classicists who would include the usual long study of the classics and history, as an indispensable part of "our educational birthright" and exclude, as a matter of fact, any reference to, much less study of, the material and manufacture of the implements—dishes, knives, forks, spoons, etc.—that appear on the diet table three times a day, seem inconsistent, illogical, and prejudiced. The attempt to make students realize the manners and customs and civilizations of Greece and Rome and correctly interpret their languages, while blind to the character and manufacture of things that come under their very eyes and noses three times a day—all that makes one wonder what an "educational birthright" is anyway, and whether the so-called "liberally educated" are not, after all, as one-sided as other educated persons who have no knowledge of the classics.

Children and youth learn the most easily, quickly, securely and delightedly by imitation. They get real ideas from real things and acts. With good and sufficient examples to imitate very little instruction is necessary. That is only one of Nature's numerous laws. More and more schooling signifies more and more artificial and unfavorable conditions. Then pupils get their ideas indirectly through books, the signs of ideas. Then they learn with difficulty, slowly, insecurely, and slavishly. Drills, restrictions, penalties, domination and Discipline result. This grinding and polishing process is our chief civilizing process, which reaches its limit in social functions and court etiquette. Then a sense of artificiality breaks through the skulls of many people; but, like other tradi-

tions, its grip on society and our schools is not lessened. All this is against "Nature's law." We keep kicking against the pricks and compel the pupils to do likewise.

Again, "Nature's law" decrees that the best development of children and youth is obtained when the physical and mental powers work together. How interestedly and quickly small boys learn the fine points of a game of baseball, football, marbles, etc., when they "play the game" or see it played. How vigorously they "think" and argue in the field of action. Why not use school material in some such manner in the schoolroom in a social game in which every member of a class may have opportunity and motive to take part?

Many a teacher must say, "We don't know how!" Find out; the secret is not inscrutable. Some few teachers have found a way; but most of them cannot see the children for the books. Then how stupid and glum in their classes appear those boys who showed such animation on the field of action! In the classroom they are required to sit still in a coop, to "think" on forced subjects less inspiring than a piece of granite, to stand up, recite, sit down, and breathe at command. Children with a native impulse to move, to develop themselves by "Nature's law," filled with springs that never lose their elasticity during health! Instead of making use of physical activity they are constantly enjoined to resist it. How much dynamic force is rendered useless in the schoolroom by damming a most useful current for lack of knowledge of how to utilize it!

But we are constantly reminded that the pupils are being Disciplined. That is the shibboleth of the dyed-in-the-wool pedagogue. When will he learn that the best discipline is *self-discipline* and give full opportunity in his classroom for its growth and fruitage by means of "liberty under law"? It has been done, but altogether too rarely. It should be practiced in all elementary schools. Otherwise compulsory discipline becomes such a habit that high schools, "prep" schools, and colleges feel obliged to follow suit. If that is the best that schools can do all along the line, we had better say, *"Deponite libros!"* and study the natures of children intensively long enough to complete a classical course. Then we might find something worth handing down to posterity. I am profoundly glad

that my long experience with children was along the natural current of their lives, so far as the hampering curriculum would permit.

The classicists, having had their minds disciplined by a long and somewhat exclusive study of the classics, and chosen the teaching of them as a profession, like other persons in other professions, are going to stand up for them. They are not prepared to succeed so well in any other profession and cannot be expected to condemn their best means of earning a living. Henry Adams in his "EDUCATION" said, "No man, however strong, can serve ten years as a schoolmaster, priest, or senator, and remain fit for anything else." The classicists see all there is to be seen in the classics, and, it is to be feared, a little more than they ought to for the good of the rising generation, because they often speak with enthusiasm about persons having "visions," whatever that may mean. It is a good word to soar on when understandable words give out. Probably this idea enters the college through the "prep" school, but is not always welcome in the college, if we can properly interpret the injunction of Professor Copeland of Harvard in his book on "Freshman English:" "The young men must not dream dreams, or see visions, nor recall their childhood, or their last summer vacation; they are to open their eyes and keep them open, to scenes and events near at hand." Start that in the elementary schools.

It is an easy matter for a man who considers himself liberally educated, mainly because he has been immersed in the classics, to be one-sided after all. Principal Stearns says, "It is a significant fact that the schoolmasters of our boarding schools are almost without exception strongly opposed to the modern tendency in education which would exalt the practical and abolish that which cannot be shown to have a utilitarian value." It is signifificant of the schoolmasters' one-sidedness.

Dr. Harris once described "the dons of Oxford and Cambridge as men who had become so completely absorbed in the ideals of the past that they were of little practical use to their own day and generation. They had so completely estranged themselves that the return to the concrete relations of the present was practically impossible. Such men see life in a dream. Their senses may re-

spond mechanically to stimuli, but in reality they are antique minds dwelling in modern bodies."

I have met enough of such persons and found them intolerably dull. They showed no appreciation of "Nature's laws" or works however wonderful and beautiful they might have been. The flora and fauna, and the mines, quarries and ledges of the country where they happened to spend their summer vacations had no interest whatever for them. The æsthetic values of Nature did not exist for them. They saw nothing of the artistic picture compositions and magnificent colors on land and sea and in the heavens above which Nature is constantly presenting to us. Apparently they know not the pleasure derived from such low-down, earthy things. They derive their pleasures from "visions," whatever that may mean. They never seem able to explain them to me in spite of their great linguistic acquirements. So on a walk, excursion or anything else on earth, I find them dull companions. I prefer to walk with men who have some of the spirit of a Thoreau, Burroughs, Burbank, or Thompson, or men who have opened their own eyes, not by means of the classics, but in virtue of "Nature's laws." Emerson said, "Knowledge comes by eyes always open and working hands. Man is endogenous (an inside grower) and education is his unfolding. By doing he unfolds himself."

But the classicists say in effect, "Fix your attention on Greece and Rome, absorb their splendid ideals, dream dreams, conjure up visions, and you will be disciplined, developed, and educated liberally. Although we did not live there in 425 B. C. we have a comprehensive view of the civilization there and then; besides, we have an unfailing *vade mecum* in our classically-planned classical courses."

Classicists extol Greek ideals, but are shy about recommending their manners and customs which appear to conflict with those ideals. In Harvard nearly half a century ago I had the displeasure of reading what Thucydides wrote about them during the Peloponnesian war and other scrimmages from about 433 B. C. to 411. I say displeasure because I had no taste for continual treacheries and slaughters; but it was in the Greek course under Evangelinus Apostolides Sophocles, and considered just what I needed

to give me the habit of overcoming tasks that I hated, so that I might be the better prepared for life. I took my medicine during that year and when President Eliot came in with his elective plan I decided that my thirst for Greek had been quenched. I am sure that I could have got a clearer idea of Greek ideals, manners, and customs in a tenth of the time by reading many good English translations, and I should have remembered longer what I read.

It seemed to me that the Greeks who had noble ideals were very few and did not properly represent the people as a whole, and that the latter made away with most of the former by poison or otherwise. They were a fickle people and as ready to kill their greatest benefactors as their enemies, as in case of Alcibiades, Philip of Macedon, and Socrates. Their religion was mainly heathenish mystery, as illustrated in the Eleusinian Mysteries, spectacular processions, and the worship of imaginary gods. The status of women was that of breeders of children. Defective children were left in country wilds to perish by hunger, wild beasts, and the elements. The Helots were condemned to perpetual slavery. All foreigners were considered barbarians and intolerable in every relation. The rulers, archons, kings, and legislators constituted themselves a higher order of beings, and everybody else was to serve them. They were not too proud to fight, but too proud to work. Their history was very largely a record of savage and treacherous fights among many bodies of men who were practically neighbors. The Hellenes went armed in their every-day life. Piracy was very common. The Athenians and Lacedemonians especially were continually fighting for supremacy, or making peace with one another, or with their own revolted allies. The long Peloponnesian War was a fair sample of their cultivated disposition to fight, and their much vaunted oratory was worked off along that line. The Athenians in 427 B. C. put to death one thousand prisoners from Mitylene. The historian Thucydides recorded this: "The Lacedaemonians asked their Platœan prisoners whether they had done any service to the former. When each said 'No,' they took him away and slew him; no one was spared. They put to death not less than two hundred Platœans." (How much better or

worse were our North American Indians, or the Germans and Turks in the late war?)

Pericles was one of their greatest orators, and on the whole a fine fellow for a heathen; but he had his weakness which was not in his heel. During an attack of aphasia perhaps, he took unto himself the beautiful Milesian woman, Aspasia, without asking for a marriage license. Aphasia renders the vocal powers useless. It has not yet appeared among labor leaders around here.

There were not many, if any, high ideals in all this crime and treachery and fighting for conquest. The classicists do not think it worth while to say much about it to their students in view of their admiration of Greek orations and literary works. But the road is too long for the students to travel for what they get. They had better read the lives of Roosevelt, Benjamin Franklin, Abraham Lincoln, William Penn, and other most eminent men, in English.

One of our greatest orators and statesmen, Charles Sumner, said, "It is an imperfection to be observed in all classical literature that the relations of man to man are viewed in it from a very low plane. It is difficult, therefore, to apply the morality of the classics to our times."

"The grandeur of ancient Greece, the majesty of Rome, once the proud rulers of the world, have disappeared; and the verdict of history specifies the prevalence of sexual immorality as among the chief of the destructive agencies by which the fall of these mighty peoples was effected."

But after all this dispraise of the Greeks, and as much more could be said of the Romans, a great amount of praise is due them for certain distinguished works, art and architecture, for instance. Why do the classicists not make much of such classic works? Because they are too utilitarian or scientific, or because they must know what they are talking about and have too little time to make adequate preparation? None of them has made any correlation here, so far as I have read. They do not seem to be looking for opportunities to correlate.

I must mention briefly one work of the Greeks strictly in harmony with the spirit of this paper. They made extensive use of

modified vegetable forms for architectural ornamentation—palm leaves, buds of various kinds, the flower of the honey-suckle, the shoots of the pine-apple, and the stalks and leaves of the acanthus plant, the last being the predominating element in Corinthian capitals, as well as in Greek ornamentation generally. But it should be noted especially that they went directly to Nature for these suggestive forms, not through books. The Renaissance architecture also includes many vegetable forms.

What have American architects done with Nature's forms? As much as the classicists, perhaps. Probably they were not allowed to use such forms in an elementary way in the elementary and higher schools. However, I remember with pleasure one place where I saw elementary pupils use all sorts of plant forms in plane surface designs in color during many years. Children "according to Nature" use such materials enthusiastically, and they can do much to put into the public schools an art atmosphere, if they are given proper means and opportunities to use them, under guidance of course.

The Theory of the Junior High School

W. D. Armentrout, A. M., Department of Education, State Manual Training Normal, Pittsburg, Kans.

THE theory of the Junior High School arose from the focusing of thought upon three defects in our educational system, namely, defects in articulation between the elementary and secondary school; the large amount of retardation and elimination; and the late provision made for recognizing individual differences.

The transition from our present elementary school to the high school means the breaking up of well established social groups among pupils and the sudden forming of new social groups. The necessary readjustments are very difficult in most cases and are very similar to those which face the college freshmen or the boy who moves to a strange town. In the elementary school the pupil has practically all his study and work under a single teacher who knows him in all his activities. On passing to the high school he suddenly finds himself with three or four teachers, no one of whom knows him in such way that his various activities may be coordinated. The high school freshman also finds himself confronted with studies absolutely different in all respects from those of the eighth grade. The studies of the eighth grade have been pursued for many years and he is familiar with them, while in the first year of high school the subjects are all unfamiliar and studied from a viewpoint and by methods unknown to the pupil.

The teachers in the elementary schools have received their training in the normal schools while the high school teachers are college graduates. Those who receive their training in normal schools emphasize methods and the pupil; the college graduates received very little professional training while the subject matter has been emphasized. This causes a distinctly different type of teaching in the high school from that of the elementary school. The methods of discipline also differ very widely in the elementary school and high school. Inglis says "that no justi-

fication can be found for the sudden and abrupt change within three months from the maternalism of the elementary school to the individualism of the high school."

"The present form of articulation between elementary and secondary education violates the most important laws of continuous and gradual development of children. Changes in development must come but the sudden abrupt changes between our elementary and high schools demand a capacity for adaptation and readjustment not found in the average boy and girl."*

The theory of the Junior High School attempts to correct the defects in articulation by making possible a closer relationship between each successive grade and the preceding one as far as teaching material and subject matter are concerned. The following *gradual* changes are made possible: the gradual change from the one teacher plan of the grade school to the many teacher plan of the high school; the gradual change from largely supervised work in the earlier grades to the more independent work and responsibility in the later grades; the gradual introduction of new subject matter and its proper relationing to the old; and the gradual introduction of the election of studies and courses.

The second defect that the Junior High School attempts to remedy is the problem of retardation and elimination. Inglis, in "The Principles of Secondary Education," gives the following statistics:

90 % of the pupils remain in school until 12 or 13 years of age.
4/5 % of the pupils remain in school until 14.
2/3 % of the pupils remain in school until 15.
1/2 % of the pupils remain in school until 16.
1/3 % of the pupils remain in school until 17.

Another view of elimination is given as follows:

3/4 % of the pupils who enter school reach the 6th grade of school.
1/2 % of the pupils who enter school complete elementary school.
1/3 % of the pupils who enter school enter high school.
1/8 % of the pupils who enter school complete high school.

A view of elimination in the seventh and eighth grade: 2/5 of

* Inglis, Principles of Secondary Education.

the pupils who enter the 7th grade never enter high school; 1/4 of the pupils who enter the 8th grade never enter high school.

The boy or girl who leaves school at the close of the sixth grade has received very little training which will enable him to meet his or her needs in life. The same is true of those who leave school after completing the eighth grade.

The theory of the Junior High School provides for a reorganization of the subject matter of the seventh and eighth grades so as to provide a more contentful form of education for those who leave early. The Junior High School makes possible the introduction of prevocational and some vocational education, and also the encouragement for boys and girls to complete their education through the Senior High School.

The Psychology of individual differences indicates that provision must be made earlier in the school than our present high school period to adapt the work to the different capacities, interests and needs of the pupils. Because of this factor of individual differences the sudden change from elementary to secondary education is dangerous not only to the individual but to society.

The theory of the Junior High School makes provision for: an earlier introduction of different studies for different groups of pupils; promotion by subjects; for the introduction of forms of instruction which may give pupils an opportunity to discover and test out their capacities, interests and needs; educational direction and vocational guidance. The needs of the boys and girls who leave school can be met far more satisfactorily by the Junior High School than we are now doing under our present system of eight-year elementary and four-year high school. The needs of the backward child and the bright exceptional child can also be met under the provisions of the Junior High School.

Whether or not the theory of the Junior High School will solve these three vital problems only the future can tell. The rapid increase in the number of Junior High Schools since 1910 show very clearly that educators have confidence in the theory. In 1910 two cities reported Junior High Schools, 365 registered in 1915-16.*

The theory of the Junior High School presents at least three

* The Fifteenth Year Book, Part III. The Junior High School.

difficulties. The first of these is the division of our school system into three departments: elementary, junior and senior high schools, involves the danger of making two critical points of transition rather than one. Great care must be taken lest the evils found at the one point of division may not be increased by the creation of two points of division.

One of the greatest if not the greatest problem involved is the changes in teachers, methods and textbooks. At present we have few teachers who have been trained for Junior High School teaching. Our present Junior High Schools are taught by former elementary teachers or high school teachers.

In one case we have a junior high school building in which the teaching and methods are the same as the elementary school. In another case we have a junior high school building where teaching and methods are the same as the old four-year high school. In neither case do we have a real junior high school that meets the needs of junior high school boys and girls who are different from elementary pupils and still different from senior high school students. Just as teachers are few so there are few suitable textbooks for the work of the junior high school and the present elementary and high school texts will not serve our purpose if we intend to really meet the defects of articulation between our grade and high schools.

The third difficulty with the Junior High School is that it will not solve the problem of adolescence. We cannot organize definitely our schools on the basis of the phenomena of adolescence because of the great variability of age at which puberty begins. Where does adolescence begin? Inglis in "Principles of Secondary Education" finds that if all the boys of the age of thirteen could be grouped into one school grade we should find from 41 to 55 per cent. immature (prepubescent), 26 per cent. to 28 per cent. maturing (pubescent) and 18 per cent. to 31 per cent. mature (post pubescent). If we apply the same tests to the boys fourteen years of age—we find 16 to 26 per cent. immature, 24 to 25 per cent maturing and 46 to 60 per cent. mature. For fifteen-year old boys 12 per cent. are immature, 22 per cent. maturing and 65 per cent. mature. In order to include 2-3 of the boys three ages groups would have to be taken. Inglis also finds among boys in

the freshmen class, 25 per cent immature, 20 per cent. maturing and 55 per cent. mature; in the 8th grade 35 per cent. immature, 23 per cent. maturing, 41 per cent. mature; in the seventh grade 50 per cent. immature, 25 per cent. maturing and 25 per cent. mature.

On the theory that adolescence begins at twelve or thirteen, the fact remains that we do not get a large proportion of the twelve and thirteen-year olds in the seventh grade. Inglis found, from an examination of 35,000 pupils in six cities, that in the seventh grade there were only 21.6 per cent. of the twelve-year olds and 27.5 per cent. of the thirteen-year olds. To quote from Inglis, "Principles of Secondary Education," "It is to be noted that until the factor of selection operates strongly in the later years of the secondary school the proportion of pupils belonging to any age group which is found in any single grade of the school is rarely as great as one third of the entire age group found in the entire school system."

The great variability of the age at which puberty begins and the age grade distribution of pupils prevents any complete organization of our schools on the basis of the adolescent needs.

The Selective Process in English and American Higher Education

J. Crosby Chapman, Ph. D., D. Sc., Associate Professor of Experimental Education, Western Reserve University, Cleveland, O.

HOWEVER dissimilar two countries may be in their social organization, in their general educational policies, there must of necessity be many points in common. Such is the case in the examination of the English and American elementary systems. In this paper emphasis will be laid on one important feature of difference in the secondary and university systems of the two countries. While this dissimilarity is being emphasized, the great likenesses should not be forgotten.

It will facilitate this comparison if a partial statement is made of the theory which has been responsible for the present policy in English higher education. Whatever branch of knowledge is examined, the humanities, science, medicine, art, it is a patent fact that the important work of the world has been done by the few. This principle is beginning to gain more recognition in this country, as is shown by the increasing number of school systems which are introducing special classes for those of marked intellectual ability. This system accelerates such pupils and if followed in our higher institutions, would go far toward remedying an important defect of our educational process.

If we accept as our definition that education as a social institution is the method by which any particular generation endeavors to incorporate the vital elements of its civilisation and culture into the life of the generation that succeeds it, we must bear in mind that the vital elements of civilisation and culture have, broadly speaking, been bequeathed to us by the work of a small intellectual body of men, who however much they needed the general current

of their times, to help them to give form to their ideas, yet largely out of the training they received were evolved those fundamental principles upon which the whole of our social and intellectual life is based. The minds of these men have mirrored the universe, from men of this type have emanated the thoughts that have moulded our civilization. If education consists in a mere handing on of culture from generation to generation, then it is not a matter of vital importance to whom each generation gives its maximum culture. But if, having received of the past, it is the duty of each generation not only to preserve, but also to supplement, then it becomes of the utmost significance that primarily we hand on our culture to that class which is able to utilize it to the best advantage. To put this idea in concrete form, it were better to have a system of education which gave the maximum encouragement to its one master mind, while the ninety and nine had a slightly inferior training, than one in which the ninety and nine were given the greater consideration at the expense of the master mind.

No greater fallacy has ever been invented than that which states, that if the average child is given attention, genius will take care of itself. This pernicious doctrine (invented to quiet the conscience of mechanical teachers in cast iron systems) had it been followed, would have robbed the world of its greatest minds. Biography would rather indicate that genius is one of the tenderest plants which needs all the care possible, if it is to yield its rare fruit.

This whole idea, which has dominated English education for centuries may appear at first sight to be opposed to that sacred idea of democracy which in superficial application serves to justify the most outrageous consequences. When however democracy is examined it at once appears that precisely the opposite is true. The liberty of democracy leads directly to inequality based upon the natural differences of capacity and application of men. The few men of ability rise, and upon them devolves the function of leading. So that democracy, while it works in the direction of a wide diffusion of intelligence, has still upon its shoulders the responsibility for training its masters, for unless these are sound, even

more than in aristocratic government, the common people must be misled by their comparative ignorance of all the greater issues.

I would therefore assert, though it is a point for debate, that that system of education works for the greatest good, which gives to the many the best education compatible with the greatest encouragement to the few, who on a large scale will contribute to the welfare of the social order. In the light of this generalisation, an examination of the difference between English and American education is made clearer.

A study of education as it has existed in England involves a consideration of the whole scheme of instruction ranging from the commencement in the preparatory or elementary school, through the secondary or public school, up to the university. For in England more than in this country, it is the requirements and ideals of the college and university which control the work done in the secondary schools. The first requirement therefore is an understanding of the place and function of the university in the life and economy of the country. That is we have to answer the general question:—what does the university demand of its freshmen, and what final product is it object? For as the university is, so will the school be also. Perhaps in view of the loose terminology used in the various countries, it might be well to define what is meant by university, as used in this paper, in terms of American standards.

The boy who enters Oxford or Cambridge at the age of nineteen or twenty has completed a course of study which, though more intensive, is about equivalent to third-year work of the better colleges of this country, so that by the university period, he has sufficient foundation to warrant specialisation. Herein lies the great difference between the work done in the higher institutions of the two countries, for in the American college a large part of the time is spent in bringing the student up to the stage realized by the European student when he enters. Hence another distinction arises, the American College system, and to a smaller extent the university system is essentially scholastic, the professors and instructors give much of their time to instruction in classes, the

methods are much the same as those of the school, the student is held down to attend lectures. On the other hand, at Oxford and Cambridge, the undergraduate may attend as he pleases, the better student he is, the fewer lectures he will attend: in this way he is thrown on his own resources, for the university is largely a period of self-education. The fact that the terms are so short, and the social activities so great, leaves the bulk of the course to be read during the vacation, this in itself again puts weight on independent work. A hasty generalisation would lead to the view that while the American student is intellectually alert and active, he does not learn how to study. The system of perpetual examinations which are mere licenses to forget, instead of one comprehensive examination at the end of the work also encourages a lack of thoroughness. Such a system is good for the average, but for the really intellectual student hardly any provision is made. From what has been said it will be evident that the term university as used here will have reference to a slightly different type of institution from that found in this country. Bearing this difference in mind, it is interesting to trace what effect the university by its selection exerts upon the schools of England.

In answering the general question, we can analyse the students of the ancient universities and to a less degree those of the modern universities into three main types:

(1). Those who are to pursue an academic life.

(2). Those who are to be given a wide and intensive intellectual training for important administrative and professional work.

(3). Those who enter the university primarily with a view to its social side, and who have neither the initial training nor the native ability to pursue any work of high intellectual order.

The work of the university is concentrated chiefly on the first class:—those training for an academic life: but considerable attention is given to the second class who are to form the backbone of the governing classes of a large Empire. The members of the third class are a financial asset to the university, and contribute materially to the charm of the life, but they are not taken seriously, a special pass degree being awarded them for a low standard of achievement, as opposed to the high standard required of the

two previous classes for the honor degrees. Speaking generally we may say, therefore, that the function of the English university is to provide a thorough training for that exceptionally small element of the population which has been characterised the intellectual aristocracy. The men of medium ability may enter but they will receive little attention and will not be able to read for a degree that carries with it any considerable academic weight. In other words no encouragement is afforded and no attempt made to give higher education to mediocrity. This element is out of place in a university, if it occupies the time of its teachers.

It will probably clarify thought if I trace briefly the history of two typical boys born under different social circumstances, yet both endowed with the necessary mental capacity to warrant the highest university training. The boy of the upper classes is sent at the age of seven or eight to a preparatory school, here he spends about six years in preparation for entrance to one of the large secondary schools, the so-called public schools, such as Winchester, Eton and Harrow. The transition from the preparatory to the public school in this way takes place at the age of thirteen or fourteen. The difference between the preparatory and the public school lies rather in the general administrative method of control than in any considerable difference in curriculum. From five to six years is spent in the public school prior to passing as a Freshman to the university. The career of the boy of the poorer classes is somewhat different. He is forced by circumstances into the elementary school which he will enter at about six years of age. On account of his ability he will gain rapid promotion, so that by the age of eleven or twelve he will be in a position to compete for a scholarship, which will enable him to attend one of the smaller public schools, where he will be maintained by a system of scholarships for a period of eight or nine years until by further financial aid, he is able to enter the university. Thus except for the very best boys there is a complete divorce between the secondary and elementary education. There is no method as in this country, whereby after passing through the elementary school, it is automatically possible for the pupil to pass into the secondary school: this passage can only be accomplished by the avenue of scholarships

which are difficult to obtain. Up to a very recent date the ordinary elementary school child at fourteen ceases to have any claim on the state for further education, and unless equipped with supernormal ability is unable to obtain further instruction without payment.

This divorce between elementary and secondary education is made even greater by the fact that the upper classes rarely if ever dream of sending their children to state-aided schools, an unfortunate result of the social caste system.

We are now in a position to see the wide influence of this principle of selection which operates from the moment the child enters his first school to the time when he takes his final honor at the university. At the preparatory school those boys are singled out who will be likely candidates for the scholarships at the public schools, while the others are neglected. Still more true is this in the public schools, where all except the best are left to themselves in favor of those who will be able to bring honor on the school by winning the entrance scholarships at the university. At the university the same principle is even more evident for only to those of high standing is individual attention given.

Not only is this process aided by the general aim of the administration of the whole of higher education but it is strengthened by the curriculum of the schools. Only in the elememtary department of education is any attempt made to foster vocational training: in fact from any influence of this kind the boy in the public schools is carefully shielded.

At the age of twelve years the public school boy has to make the decision with regard to the particular academic side of the school he will enter. Theoretically there are three paths open to him: Classics, Modern Languages, and Science. I use the word theoretically for the choice is often of the Hobson type. If the boy shows any marked ability he is urged to go on the Classical side; it is known in the school that this side draws the boys of superior ability and attainments, so that this in itself serves to enhance this line of study. Around the Classical side of the old public schools, there rests a halo of academic distinction which no one but the public school boy himself can thoroughly appreciate. Vocational and commercial training has its place in the educational system,

but only for "the masses." Such is the view of the advocates of these schools

Suppose however that the boy in question, whose abilities mark him out for a university education does enter the modern or science side of the school, here again the same process is in operation. Once more the content and methods of the studies are purely scholarly; science is not taught for the purpose of adaptation to life, but for the purpose of training boys to win scholarships at the universities. Modern languages are, with rare exceptions, treated as dead languages, in which a chosen few are again sufficiently adept to be worthy of training for the same race!

At this point we touch upon the weakness of the English public school system. A great deal of interest is being taken in objective standards in this country. The English public school has had one objective standard for centuries, namely, the number of open scholarships which a school can win each year at the universities. Better that one classical scholarship should be won at Balliol or a mathematical scholarship at Trinity, than that a better adaptation of curriculum and method should be made to the ninety-five per cent. of the pupils who never dream of universities. The world applauds the few who reach the temple of academic distinction, but the paths which lead thereto are strewn with the corpses of those who have failed. We count the gain but who can estimate the loss?

This method of sending all the boys over the hurdles which get higher and higher as time advances in order to select the few who have the power to negotiate them, is greatly aided by the absence of anything in England corresponding to a graduation distinction. It is an intellectual impossibility for the average boy to complete the course, the pupil in the public school leaves when he will, whatever may be his position in the school, and naturally with such a lack of adaptation of the school to the pupil, no disgrace is attached to such an action. Thus only an exceedingly small percentage, at the outside five per cent., complete the course, yet it is for these that the whole school on its academic side is framed.

At this point it may be mentioned that there is springing up in England since 1902 and more rapidly since the war a system of secondary education which follows more closely the content of cur-

riculum of the American High School. In these so-called County Secondary Schools, the better boys from the elementary schools are enabled by the payment of small fees or the winning of small scholarships to continue an education, the early part of which has been obtained in the elementary school. The subjects taught and the methods adopted are very different from those found in the large public schools; less attention is paid to Latin and Greek, while most of the time is spent on more practical subjects such as English, French, German, History, and the Sciences.

Such schools as these became necessary owing to the wide differences in the curriculum of the elementary and the preparatory and public schools. The great emphasis laid on Latin and Greek, and Mathematics in the latter schools meant that unless a boy leaves the elementary school at an early age, he is debarred from entrance to a public school by the mere fact that the subjects he has studied are not those required by the public schools. This system suffers from the great drawback that only to the boy who developes early is there a path open to higher free education: if he is late in development, he passes the age at which scholarships are won, and even if he were able to gain the scholarship, it is too late to adapt himself to the requirements of the public schools.

It may appear from what has been written that the average boy in the public school merely wastes his time. Although there is too much truth in this statement, it would be a mistake to assume that it represents the complete state of affairs. True he muddles through a small part of the course which is ill adapted to his ability or energy—on the academic side there is undoubtedly an appaling waste of time and energy. But there is the other side of school life which is cherished. If in this country there is education without socialisation, in England there is often the reverse:—socialisation without adequate education. It is difficult to estimate the value which accrues to a boy who spends four or five years in one of the large schools; perhaps nothing can compensate for the lack of these years, spent in the shades of antique buildings, the whole atmosphere of which recalls a great past. In the School itself the boys live in houses about twenty or thirty together under the care of a house master. It is the training afforded by this house system

with its ready social intercourse which has given the English public school boy power of control and savior faire, in spite of great ignorance of the more fundamental social issues. So pronounced is the influence which these old schools exert that it has produced a species: the public school type—which can be recognized by the initiated the world over.

What has been said of the school is equally if not more true of the effect of university life on those who enter for the sake of its social side, having renounced all attempts at academic distinction. There is no place in the world where social activity is so general as at Oxford and Cambridge. For those who for three or four years can breathe this enchanted air, and there lose and neglect the creeping hours of time, no more delightful occupation can be conceived; and if taken in a broad spirit is an education perhaps superior to that afforded by the lectures. If we exclude this social side, it may be said that English education, in its attention to the few, carries to the extreme the famous truism "to him that hath shall be given," while in its neglect of the many, the converse holds: "from him that hath not, shall be taken away even that which he hath."

To those educated in the schools of this country where the democratic ideal rules, it is almost impossible to imagine the difference between the principles which control the systems of the two countries. It is no longer, superficially, the greatest good to the greatest number, but the greatest good to the few.

It may be interesting to trace the difference of outlook and temperament in the two countries in order to discover what are the fundamental reasons which lie at the foundation of such a disparity of view. Obviously the chief cause, for the type of education which is found in England, and which is so static in its social effects, is to be found in the settled state of the population. There is no great alien body which needs assimilation, the people themselves did not demand a higher education. In the end even the common people have that type of educational system for which they ask; the separation of the elementary and secondary education with the abrupt ending of the former at the age of fourteen,

is due to lack of ambition and zeal for education exhibited by the lower classes. It is too big a task in a short paper to trace this lack of ambition to its economic and social causes. At the other end of the scale among the professional and upper classes nothing is so much respected as education; to have been at Oxford or Cambridge is the hallmark of social respectability, while to have attained high honors is the hallmark of intellectual attainment. As long as these two extreme class views hold the field, no bridge can be made between elementary and higher education. A democratic system of education can only rest upon a wide foundation of social equality, based on a free exchange of ideas and intercommunication of groups.

There is a second cause which lies not in the temperament of the people but rather in the geographical limitations of the country. In America one is constantly face to face with the problems attending an opening up of new territory. Expansion, in its initial stages, always calls for a supply of intellectual mediocrity. In England there is no such demand: by long tradition those to whom she entrusts her public affairs are men of high academic training and broad culture.

It must not appear from this paper that the final decision is one in favor of the highly selective influence of European education. Its defects are patent; as the demand of democracy quickened by the war becomes more rationalized, it will insist on an education suited to those who never intend passing to the universities. No one who is familiar with the waste of intellectual energy on the part of 95 per cent. of English school boys can be optimistic, however great may be the intellectual products of its best minds. Even intellectual productivity can be bought at too high a price.

Thus while England has much to learn from us with regard to the democratization of education, some of her methods are of interest to those concerned with the university education of this country, for it is on the university proper that American scholarship and scientific progress must depend. Statistics must cease to be our gods; the graduate department of our universities must attract a smaller and more selected group, and its method of instruction must cease to be that of a school. In no country has the

university been so responsive to the needs of the changing conditions, but it is necessary as a correction to this radicalism to bear in mind what is one of the most important functions of a university:—the production of a small body of original investigators and highly trained experts, who are to advance knowledge and meet the crises of our national and international life.

Summarising we may say that the English system of the past was designed and to a large extent is still operated for the purpose of facilitating intellectual productivity; if this is the main function of the higher educational movement, then England is set in the right direction. But if the function of the university is to equip a comparatively large group of superior men with an education which will enable them to take a more intelligent interest in the world politic, then this country is the more fortunate in its system. Perhaps each aim is the best adapted to the present state of evolution of the country in question, but it would appear that, in the United States, the advantages of both systems might well be combined by more attention to those of marked intellectual calibre.

Standards By Which School Boards May Judge Applicants

Floyd R. Barber, Thornton, Idaho.

BEFORE taking up a discussion of the characteristics which make applicants desirable or undesirable to school boards, and which I here choose to call standards, let us bear in mind the old adage that "All rain signs fail in dry weather." So these so-called standards are not infallible, but they are true in a large majority of cases, therefore I believe they are truly standards of reasonably accurate judgment.

If an apology be needed for the writing of this article it may be found in this: When I submitted a former article which appeared in a recent issue of Normal Instructor-Primary Plans, "Qualities in Teachers that School Boards Pay For," to the secretary of our school board for criticism, he said:

"Now if you will write another article telling members of school boards how to select teachers you will do us a sure enough service."

The present article aims at answering, in as concise a manner as I am capable of, the problem stated in the secretary's suggestion.

There are, as all know, two methods of making application for a teaching position; viz, in person and by letter. The latter method is at best an unsatisfactory way, but since teachers cannot, as a rule, spare either the time or the money to appear in person before school authorities, especially when the desired location is a considerable distance away, the latter method must continue in use in a great many instances. First, however, I wish to take up the case of the applicant who appears in person.

Trustees are only human in spite of the belief we teachers sometimes have that often they are inhuman. Therefore, the personality of the applicant is, and should be, the first point of consideration. Since personality is the sum total of certain personal traits, mannerisms and accomplishments, I shall outline a few of the prominent considerations in detail.

One of the first points of consideration by the school board is the disposition, or apparent nature, of the applicant. The personal bearing of the candidate should be frank, pleasant and courteous. Those who are secretive, glum and reticent and those who are over confident, forward and "mouthy" are alike to be rejected without serious consideration; the candidate who has an agreeable manner; who radiates an air of sincerity and reasonable aggressiveness; who has confidence without braggadocio; who is modest without timidity; that one is worthy of careful consideration.

After the personal appearance and manner of making application have been noted, the school officers should then proceed to examine the following points, which I have not sought to arrange in the order of their importance but merely at random as they suggested themselves.

(1). Education. Examine the certificate or diploma of the applicant. Ascertain whether he or she has the necessary credentials to legally fill the position aspired to, or whether, if no authority is held at the time just what the probability is that the candidate will be able to qualify. Find out where applicant's education was obtained, time spent in acquiring it, etc. And here let me say to those whose business it is to pass judgment that the truly educated person is seldom the one who voluntarily airs such culture for the benefit of the electors. The one who is really educated usually takes it for granted that the mere fact that one is an applicant for a certain position is *prima facie* evidence of scholastic fitness.

(2). Experience. This is an asset undoubtedly in a majority of cases. But boards should proceed with caution and not employ one person on the ground of experience and turn down another for the lack of it unless other factors favor the employment of the experienced teacher in preference to the other one who is only an aspirant to that dignity. The principal point is this: Was the work of the experienced teacher satisfactory in former positions? This can usually be ascertained without any vast amount of endeavor on the part of the board. If the work of the experienced teacher was not satisfactory in former periods of service it will likely be the part of wisdom to employ the inexperienced candidate if he or she gives favorable promise of doing good work.

(3). Health. This is truly a vital matter. No teacher who suffers habitual ill health is fitted to be the associate and director of developing minds and bodies. Not only is there sometimes danger of infection, but the unhealthy teacher is often nervous, peevish and impatient in the performance of duty and will contribute a general atmosphere of restlessness in the school room, a dislike for school, on the part of the pupil, and often the unconscious adoption by the pupil of the nervous "tics" or habits of the teacher.

(4). Character. This is, in my opinion, the most vital point for the consideration of the employing body. Usually the candidate bears references from former employers and acquaintances. These references are to be accepted with caution for reasons which I will later state. By far the better course is to consult with school officers previously employing the applicant, or, if the applicant is inexperienced, with the faculty of the school last attended. Every teacher leaves an indelible impression upon the student and it is of the utmost importance that the impression shall be of the right kind, aiding in the development of such cardinal virtues as honesty, courage, tenacity and industry. I have personally known persons who passed as teachers, both men and women, who were utterly lacking in the force of character necessary to develop a high type of citizenship in their pupils. It is usually easy to communicate with some one who can be trusted to give accurate information concerning the applicant, by letter if time permit, otherwise by long distance or by telegraph.

Other points which I can only indicate here but which are worth careful study are sociability, tact, courtesy, aggressiveness, enthusiasm, and others of varying importance.

Let me once more emphasize the fact that school boards, principals and superintendents should never waste time considering either the applicant who comes boldly demanding a position and blatantly advertising himself or herself as a paragon of teaching, or the one who comes cringingly and apologetically, begging the position as a sort of favor. Consider rather the candidate who looks you squarely and frankly in the eye and whose presence seems to say by that subtle something which we may define as a general air

of fitness, that the applicant expects to be judged solely by the ability to "deliver the goods," as American slang so forcefully puts it. For, after all, the matter of selecting a teacher is purely a business proposition, and the key word should be the same as that adopted by other big business, namely, efficiency.

I shall now take up briefly the written application. Standards are much harder to apply in this case, for there is no satisfactory substitute for the living presence of the candidate.

The written application should be explicit, concise, informative, courteous, as brief as may be without withholding necessary facts, and formally correct.

Boards of education and other persons charged with the election of teachers should rarely waste time considering written applications that are not accompanied by photographs of the candidates unless there is a mutual acquaintance. The photograph, in the absence of the applicant, is the only way in which the examiner can form even a hazardous guess as to the personal appearance of the one aspiring to election, always a matter of importance, though, unfortunately, often entirely disregarded. The application should also be accompanied by recommendations or, better yet, by the names and addresses of persons in a position to give accurate confidential advice.

As stated previously, a written recommendation by a person unknown to the school authorities is to be accepted with caution. There are at least two perfectly good reasons for this. In the first place, any old "Tom, Dick or Harry" can get one; in the second place, it is likely to conceal more information than it gives.

As an illustration, compare these two examples which may be accepted as typical.

Ellsworth, Kan., June 8, 1914.

To Whom It May Concern:

This will introduce Miss . . . , a most agreeable young lady who desire employment as a teacher, I have personally known her for a number of years. She has taught in our school for the past seven months.

We wish her success.

Sincerely,

Fort Worth, Texas, April 4, 1915.

Mrs. ————,
Parma, Idaho.

Dear Madam:

Permit me to call your attention to the application of Mr. ———— who is a candidate for a position in your school.

I have personally known Mr. ———— for a number of years and, having served as secretary of the school board here for the past dozen years and in that capacity having concurred in his election and subsequent re-elections as a member of our faculty, I am in a position to pass judgment upon him.

It gives me pleasure to recommend him as a capable teacher, a Christian gentleman, and a trustworthy and desirable citizen. He is fully capable of filling with satisfaction any position in the teaching world to which he may aspire.

I shall be glad to have you address me at any time concerning him.

Yours truly,

————

A study of the first of these "recommendations" shows that it is really not a recommendation at all but a cleverly worded concealment of the true estimate in which the lady is held. Such a noncommittal affair could not possible be construed as a recommendation in any sense of the word.

The second, however, speaks in strong terms of approbation, and on the face of it the writer is evidenly sincere and has a deep respect for the ability and character of the gentleman recommended.

An unfortunate feature of the giving of references is that often a school board, or some single member of the board, or a principal or superintendent will give a strong recommendation to a teacher whom they would not re-employ under any circumstance. This may be prompted by a desire to save the feelings of the teacher dismissed, or it may be merely indifference as to who suffers in the future by employing the one unworthily recommended. Whatever the reason, it is time to introduce a more honest and fair system and teachers themselves should vehemently insist that no recom-

mendation be given unless fairly earned by honest and fruitful effort.

In closing, let me urge all who have to do with the employment of teachers to use deliberation and judgment in selection. Insist that the candidate to be chosen possess a character of unquestioned personal integrity; a righteousness tempered with charity; a cheerfulness which keeps the corners of the mouth turned up; a courage that laughs at obstacles; a resolution which will not accept defeat; an unbounded enthusiasm for and interest in the noble profession of teaching; and a well balanced education combined with a liberal portion of common sense. And let me say that a good measure of common sense often more than compensates for any slight deficiency in book learning.

If school officers will see to it that these great fundamentals be not seriously lacking in the candidates chosen then they may reasonably expect the school so guarded to be elevated by the quality of service rendered by the teaching body.

Strawberries

A shrill voiced vender of the street;
"Strawberries!"
A push cart in the dust and heat,
Burdened horses, hurrying feet;
"Strawberries, berries!"
Crushed and stemless! Are they to eat?
Bruised and bleeding and bitter sweet?
"Strawberries, berries, ripe strawberries!"

The call of the country; roadsides, rills,
"Strawberries!"
Gardens, orchards, valleys, hills,
Sunshine; shadow, if sunshine kills,
"Strawberries, berries!"
Where nesting birds their secrets keep
Luscious, dew drenched berries peep
From tangled grasses, fresh from sleep
"Strawberries, berries, ripe strawberries!"

Alas a vision, flitting fleet;—
Back to the vender, back to the street;
Back to the dust and the fever-heat
And the bleeding berries, bitter sweet.
"Strawberries, berries, ripe strawberries!"

ALDA DOROTHEA LEAW.

The Separation of Composition and Literature

ANNA E. HARRIS, HUNTINGTON HIGH SCHOOL, HUNTINGTON, WEST VIRGINIA

OF the making of books there is no end and of the discussions on the subject of English—many and varied as they are—there seems to be only a beginning. Some one has described the difficulties of the teacher of English as akin to those of the repair man in the garage. How much easier to work in a factory as does the teacher of science or of Latin than to be the repair man to whose garage come the students of English with needs and previous attainments as various as those of the Saxon and the Hudson, the Ford and the Packard.

A glance at the history of the development of secondary schools in America shows us the reasons for our former courses in English and the crying need for changes in the course to meet the modern conditions and the new aims and ideals in the present day High School. So long as the Latin schools and, in turn, the academies and the High Schools were only feeders for colleges they needed only such courses as the colleges demanded. Latin and mathematics were deemed necessary and the assumption was then that the mother tongue should be learned without study or training. For many years aristocracy and theocracy dominated both colleges and secondary schools. Students were prepared for the ministry and for the other so-called learned professions. But in our democratic twentieth century the modern high school, the great people's college, prepares its students for business and social efficiency and in this preparation nothing is of greater importance than the power of self-expression. The study of the vernacular, the training in the use of the mother tongue is now acknowledged to be of supreme importance.

While many texts were written in Latin, that language was important and was studied instead of English. When English training was begun the aim was at first to teach only grammatical cor-

rectness and accuracy—this was the time of Lindley Murray and Noah Webster. A half century later came a time of emphasis upon rhetorical study, after 1874, and the establishment of the Harvard entrance examinations. A little later came a third ideal, that of appreciation of literature and for the past quarter of a century teachers of English have followed more or less slavishly the outlines of the college entrance requirements in English.

A glance only in retrospect at some of the texts in rhetoric studied by ourselves a generation ago shows us clearly the excellencies and the faults of that period of English teaching. The limits of this paper will not admit of a discussion of these, but alas! we still occasionally see classes where the pupils are groping through a rhetorical fog and drifting drearily against lectures on style and literary appreciation which they can in no way connect with their life in school or in the world at large. They may acquire a disgusting parrot-like culture or they may grow so weary of the teacher who welcomes punctuation marks and paragraph indention more than she welcomes ideas—that they resemble the boy who said, "I never see Miss Blank without thinking of a comma."

For a long time the cry has been in both the high school and college that the pupil has no ideas, that we must give him literature to furnish ideas and models for composition work. With what results has this attempt been met? In some instances the ideas have been found and the resulting themes have been good, but more often, by far, the outcome has been only to dissociate from real life both the literature and the composition. We cannot teach our boys and girls to write novels, poetry and literary appreciations. We fail to make literary writers and we fail to teach practical English expression. The other departments complain that the students cannot read with understanding—cannot formulate the facts gleaned from the text in science, history, etc.—so as to recite in clear, accurate sentences—that recitations consist often of monosyllables, detached phrases and sometimes of ungrammatical sentences; colleges complain that the papers written in entrance examinations are lacking in form and content.

What shall we do? Where is the remedy? On no other subject

has so much been written, in no other department have teachers worked more untiringly or more conscientiously and yet nowhere have results fallen so far short of the teacher's aims and ideals. No teacher of English feels that he can neglect the great field of literature, the crying need for replacing the Motion Picture magazine and other similar forms of popular fiction with something higher in its appeal and permanent in its value. All teachers realize also that our students need English as a vehicle for self-expression.

English needs not to be separated from literature but to be connected with every subject in the High School! The pupils need not literature to furnish ideas but a command of clear, concise English to express the multitude of ideas that they have on perhaps every subject except literature. Never accuse the modern boy of a lack of ideas. Nature abhors a vacuum and his apparent vacuity is evident only when he is expected to make a hothouse of his young ideas and cull nosegays of thought and emotion from fields all too recently planted. We cannot expect the freshman to produce literary masterpieces—finished productions—even though we have painstakingly taught him several classics prescribed for college entrance examinations. Do we expect a beginner in music to play a Beethoven sonata because he has studied Beethoven's life and had a little of the teacher's understanding of the musical theme explained to him? Do we expect our beginners in the drawing class to produce or to reproduce a Corot landscape? The borrowed ideas with which the poor bewildered child struggles to fill the required number of pages may lead him only to a habit of judicious copying and piecing together of facts found in his reference books.

No! his reading, to be valuable to him, must be a pleasure and his expression must be very nearly connected with his life and with the surroundings in which he is interested. In other words we must train him for life, and life consists of the practical and the cultural, of vocation and avocation. We must train him to be efficient in society and in business in the modern world and we must if possible prepare some pleasure for the leisure hours, some comfort for the lonely and quiet hours so inevitable in every life, yet in youth so seemingly remote.

Before going further in this discussion, let us take an inven-

tory. At present in the Huntington High School—and we are, I judge, about an average high school—we have a course in English carefully formed a few years ago by the Superintendent, High School Principal and the English department—according to their best knowledge and judgment at the time. This course consists of four years of REQUIRED English, the first two given over to composition and rhetoric with some reading of the simpler classics and a review of the grammar and composition of the grades. The remaining two years are devoted to the study of literature and the history of literature including the college entrance requirements and such theme work on the classics as the individual teacher decides according to the needs of the classes from year to year.

A much better arrangement would be two required parallel courses during the first two years—one in composition and grammar, the other in reading and literature. These might be taught by the same teacher or by different teachers. The objection to the hardship of one teacher teaching nothing but composition can be met by requiring few written themes and constant work in oral expression upon subjects within the range of the child's experience and life—not upon subjects taken from the classics read. Some part of the reading may be used occasionally for composition work just as some part of the science or history lesson would be used, but not more than that.

In the third and fourth years we should give elective courses, one in practical business English, oral and written, for the pupils taking the Commercial and Vocational courses, and courses in college entrance requirements for those preparing for College or University, and courses in appreciation of literature for those who wish a broader preparation for future life. I should encourage all students to take these advanced courses. And in all composition courses, we should as far as possible, secure the *co-operation of every teacher* in the high school.

You ask, "Is this radical? Is it possible?" I answer "No" to the former question and "Yes" to the latter. This separation is coming more and more into use in all our cities. Before 1910 Detroit adopted a course such as this.

Throughout the western states both in High School and College

composition and literature are taught separately. The two departments are different and under different heads. And as for co-operation of the other departments, we have authority of unquestioned merit. Prof. Babbitt of Chicago, in writing of "What the Schools Teach and Fail to Teach" says that all composition work is too much isolated. He advocated not so much the uniting of composition with literature as the uniting of composition work with every other subject. He says that four-fifths of all the training in English composition expression in the High Schools should be accomplished in connection with the oral and written work in the other subjects. Over-specialization of our teachers is to blame for this lack of co-operation as it is for many of the mistakes in the High School. The English department has endeavored too long to make writers, the Science department to make scientists, whereas both should endeavor to make and to train men and women. Pupils who express themselves well in the English classes fail to do so in other classes; some teachers overlook this while others, instead of seeing their own responsibility merely criticize the English department and it seems sometimes that unless all departments teach English it is well nigh useless for any to teach it. Ultimately, this problem of co-operation is one for the Principal and Superintendent to solve. It is a question of economy in the school administration. Prof. Hosic in his paper before the N. E. A. discusses this problem fully. Indeed our N. E. A. and English Council reports for the past few years are so teeming with every phase of the great problem of English teaching that it is difficult to refrain from disgressions from the limits of the present paper.

But, Fellow English Teachers, if we study our boys and girls as they come to us every day—if we follow the careers of the young men and women who a few years ago were our boys and girls, we may see our own mistakes and realize that some of our most carefully done and conscientiously planned teaching went wide of the mark and that some of our boys who today are leaders in different occupations, are speaking in the various labor and political organizations, are effective, are leaders, not because they studied the literature that we so enjoyed ourselves and longed to impart to them but because they learned to think and have found means to

express their ideas. We shall notice also that the young maids and matrons, yesterday our girls, today our fellow-workers in school, church, and club meetings, are using the oral English of which we gave them all too little—more than they are needing the fine literary appreciations that we once so earnestly strove to impart.

A small per cent. of our high school pupils enter college; a smaller per cent. become authors of more than a few letters and Woman's Club papers. The great majority are busy people in a busy world—needing persuasion and argument in salesmanship, direct business English in letters and reports, needing in every walk of life, English that appeals and gets results. Is it not our responsibility to make this possible for them?

In reorganizing the High School course in English, we realize our past mistakes, yet "this ought ye to have done and not to have left the other undone." I would not deprive the students of the college preparatory course of the joy of learning to know the masterpieces of the great bards, neither would I deprive my most troublesome and careless boy of the knowledge or the command of oral expression that means for him leadership and power.

And furthermore, I should no longer speak of an *English* course. Why not have a course in literature and one in composition? Literature includes, or should include more than the writings of the English and American authors. The myths, the Iliad and the Odyssey, the Bible stories are a very splendid part of our literary heritage. In the literature course we train the pupil to read and listen; in the composition course we train him to think and write. In other words we wish him to be able to make other people understand in the largest and best sense what he thinks, feels and wills and to be able with equal sympathy and understanding to enter into their thoughts, feelings and desires. Is this an unattainable ideal? Are we not sometimes too easily satisfied if when he has graduated, he can write a good letter and likes to read a good book? Can we not prepare our boys and girls for the practical life and at the same time fit them for the finest of the fine arts, the fine art of living? A stupenduous task surely, and one calling not for technical specialists in English with intensive training. Since English expression is connected with every subject

in the High School, since literature and composition to be worth anything must be effective in both the cultural and the social function of literature and also in the training of thought and expression, the teachers of these subjects need to be men and women of broad general education, exhaustive experience, acquaintance with the whole curriculum and many active human interests—need to be broad minded, big-hearted and whole-souled.

By separating composition and literature into two departments, by emphasizing oral as well as written expression, by uniting English expression with every department of the school, by sympathetic, tactful co-operation with all the teachers in the school, by learning greater sympathy with our pupils, a deeper understanding of their needs, by becoming ourselves bigger, broader and better men and women because of the great responsibility laid upon us, may we not make our dreams come true?

CLASSIC SONNETS

The Greek Honeysuckle

A beauteous border, the Anthemion,
Decks many a stately temple of the world.
Oh, flower that thy blooming vines unfurled
By the Aegean, scenting, years agone,
With thine uplifted kylixes the dawn!
How little dreamed men that Love's miracle,
Breathing through art, would set thy honeyed cell
Immortalized in architectural stone!

Yet, Life with which those rudest tempests toyed
Till thou of all thy fruitfulness seemed shorn,—
Born but to breathe and perish,—'t was not so!
While goddess Flora smiled above o'erjoyed,
Through the Greek sculptoe was thy soul reborn,—
They gave us the Anthemion ablow!

HELEN CARY CHADWICK.

The Aim of Science

ROLLAND MERRITT SHREVES, PH. D.,
HEAD OF DEPARTMENT OF PSYCHOLOGY AND EDUCATION,
STATE NORMAL SCHOOL, KEARNEY, NEBR.

WHAT is the scientist trying to do? What is he making so much fuss about now-a-days? Everybody hears about the scientist and about science, and most of us have been forced to give ear to him, but what is he trying to do? What is his Aim, Purpose, or Goal? Does he have a work that no one else is to accomplish, or is he merely exaggerating his own importance?

These are questions of moment, for everybody has been forced to listen and now it is time we were being told what it is all about. The scientist is on the alert today. He is ambitious to do great things. Indeed he is so alert that there is danger in thinking him either over wise or a fool. But we like energy and ambition when it does not interfere with our personal prejudices or long standing traditions. The scientist is gaining attention because he is really found to have a message. We can look on every hand and see the wonders of his works, but do we really understand what his aim is?

It might be said that in general he has two aims, theoretical and practical, but this would not do full justice to him. We want to know more in detail what he would accomplish in life. Indeed the foregoing statement would likely be very misleading, for generally the sciences have developed rather far before any effort has been made to show their practical usefulness in solving the problems of life.

Science aims at a careful, descriptive, and explanatory account of experience. Observation is the scientist's first task. He must carefully observe, record and verify by repeated observation and experiment the data he collects. He gets all his facts from the realm of human experience, forcing none of it in from another world foreign to our own. Science starts with facts of experience and ends with a complete descriptive and explanatory account of these.

In the case of applied science we go a step further and show how the laws and generalizations of science are to be used in the solution of the problems of life; in other words, how these laws can be made useful in modifying our future, or in controlling our experience.

The factor of careful observation is so important that we are scarcely liable to overestimate it. There are so many of us who have eyes and see not, ears and hear not, brains and mind and think not. We are in need of greater observation and attention to the world about us, to the facts of our experience. We make our own world by attending to that which we will, or to that in which we are interested, says James. But so many of us will do little and are interested in such a small way, that we really ought to be ashamed of the world we do make. Closer observation, greater attention, and a habit of carefully recording and verifying our experience would result in making a more habitable world for most of us. Let him who thinks otherwise try it consistently for a time and see the new meaning that life takes on as a result.

But it is not enough that we observe and record the data of our experience, we must classify and correlate them as well. To merely observe and record is to lose sight of the deeper likenesses, and to aid in making our world disconnected and uninhabitable, even for the most religious of us. All unity is lost in isolation of facts from one another. One fact does not stand alone. In reality a fact of experience is a rather arbitrary thing and amounts to a certain dependable unit of experience. Of course there is a deeper meaning of a fact of experience, the inner meaning of this fact or idea, but this is not the stage of our enquiry to unearth metaphysical problems, and especially since science has no stock in this kind of business.

Facts are merely units of experience conceived as objective and belonging to a time and space world. They are in this sense not metaphysical realities, whatever sort of reality we may decide to attribute to them. So disregarding metaphysical difficulties we may here safely say, that for science a fact entirely isolated from all other facts has no meaning or value, and no existence. Facts are significant only in so far as they point to a larger unity, a

wider scope of relation. Science, then, must not only observe, but correlate and classify its facts on the grounds of their likeness or similarity. It is only in this way that facts may lead to generalizations, and laws.

The scientist must also describe his facts as well as observe, classify, and correlate them. That is, he must make his facts understandable. They must not be confused with others but have a character of their own. Facts have an identity for the scientist which is not lost by being merged in the whole, but they do gain greater significance when so related. In description we do not go beyond the pointing out of likenesses and differences between facts and showing their relation to a larger group of facts.

Another aim of science is to explain the facts. And this it does by showing their relation not to other facts but to laws and principles, which are based upon facts similar to the ones to be explained. We mean nothing more by scientific explanation than that of showing that this particular fact of experience falls under such and such a law of experience already determined scientifically, that is, through the procedure already described. Explanation is thus the process of showing how a fragment or element of our experience is related to a larger group of experiences. In other words, by explanation we mean simply pointing out the general law under which a given fact of experience falls. There is no attempt in this process of scientific explanation to go beyond the actual time and space relationships in which, as elements of experience, they are found. That is, there is no attempt on the part of the scientist to give the absolute meaning of experience, either in whole or in part. He is satisfied to live and think in a world of time and space. He does not even try so long as he is true to his calling to transcend these temporal and spatial boundaries of the world of fact. He is not concerned with the deeper meaning and relation of facts in a world to which the philosopher ascribes reality in a metaphysical sense. The world for the scientist is the same time and space world as for common sense. But of course there is nothing in the nature of things why a scientist may not also take the view of common sense, or the philosopher too, but he must be careful and not mix these points of

view, when he is trying to give a scientific account of the world.

The scientist works in both the mental and physical fields and so has to explain how both sets of facts are related, each in its own way. Whether the facts be material or mental—and for science facts are both material and mental despite their metaphysical unity in a larger system of realities—they must be explained. And explanation everywhere means pointing out the relation between the particular and the general, the fact and the law that throws light on it from above. Just now there is started in my mind a new set of ideas aroused by that ubiquitous and joy-bringing invention, the graphophone. This is the mental fact. The explanation of this fact lies in pointing out how these ideas are related, or associated, and this is done by pointing out the relation of the physical processes which accompany them. The law here in operation is that of psychophysical parallelism, which points out the larger relations between body and mind. Laws of lesser generality are operative too, but my point here is to show what is meant by explanation in a general way.

The highest stage of purely theoretical science is reached when the facts are so grouped and related as to lead to generalizations and laws, or principles. Explanation assumes that the stage of law and principle formation has been reached. Often the law or principle is assumed rather than proved to form a starting point. In this case the generalization is called a postulate, or an hypothesis, and must later be supported by fact before it can stand as a law, or principle. Sometimes the nature of the hypothesis is such as to preclude the possibility of being supported on the basis of fact or evidence. In which case it is said not to be logically supported. In a metaphysical sense such an hypothesis would not be true or real, and ethically it would be unjustified on the grounds that it did not accord with the nature of goodness.

The fact of the certainty of the law is then a very important matter for the scientist. He must use all precaution in getting, classifying, and explaining his facts, and to this end his generalizations and laws must be well founded on fact, and constantly verified by experience, and always pliable so as to admit of a wider statement of fact. A principle and a law differ in that the

law may be disproved by the fact, but the principle does not stand in such a relation of dependence on fact. The principle must accord with a larger system of reality and to do so may often give evidence of contradiction with fact.

It is not until the method of science becomes inductive that any very substantial progress in science is made possible. But since Bacon's time this method has yielded many wonderful results and many of them in the form of laws and principles.

But the greatest gain was not made when the scientist discovered his many laws and principles. It was not until the practical motive began to operate that he could either prove the worth of his theories, or himself, to the world. He has now justified himself in the world of which he gives an account. We see on every hand evidence of the wonderful works of the scientist. We can no longer look upon the scientist as an imposter, or as a mere disturber of our long standing religious beliefs. His work is greatly needed and his point of view cannot be ignored. It must be reckoned with in the world of practical affairs. Indeed we shall see that the world of truth, beauty and goodness must start with the world the scientist has evolved. Nowhere can we afford to neglect the great accomplishments of science.

The greatest contributions of science have so far been made to the industrial and commercial world, the field in which our life is perhaps best reflected today. As instances of progress in these material ways let us mention the "Seven Wonders" of American industry. I mention first the Panama Canal, that greatest feat of American engineering. No less great in their own way are the New York railway terminal; the New York Canal; internal waterways and irrigation projects; the subway and the skyscrapers of New York. (I am indebted to Harrington Emerson for the "seven wonders" above mentioned.)

Thus it will be seen, that the once theoretical sciences of physics and mathematics have become preeminently practical. The same is true of chemistry and other sciences. But theory will continue, and it must precede practice by a good many furlongs. To be sure the practice aids theory, and makes it both more certain and more valuable. Theory and practice tend to support each other.

They may cripple each other. All depends on the kind of theory, and how it is related to the facts of experience. There is no conflict between theory that grows out of experience and practice itself. It is through theory that practice becomes enlightened and sees where it is headed. Theory is the reflector that throws light and significance on the facts of experience, and it is the projector that lightens up the way ahead so that experience comes to have a meaning.

The aim of science is, then, to render a complete and accurate descriptive account of our human experience. This account is limited in its scope and value in that it is not intended to be either complete or final. The scientist aims at a purely descriptive and explanatory account of the world. He starts with the world of fact, and from these he works up to laws and principles, which are later applied in the solution of the practical problems of life.

But a mere descriptive and explanatory account of experience falls short of giving to life any meaning or real significance. It is not facts that give life its meaning, nor is any greater meaning attached to laws and principles, for they are only generalizations, or statements of the way that certain groups of facts work under certain specified conditions. But all this account is external and the deeper meaning of the facts is not revealed by any such account.

It would be difficult metaphysically to see how a descriptive account of the world and experience could reveal life as having a meaning and a purpose, if the facts, which are the data of experience, have no such meaning envolved in themselves. Merely tieing together meaningless fragments of life does not give us a way of viewing life as purposeful. Science is no less valuable because it does not give the deeper meaning of life. This is not its business. Indeed the progress and hope of science rest in just this impartial and descriptive account of experience. The field of science is the field of the "is." Science starts with facts and ends with laws and principles governing these facts in a time and space world. It cannot go further than this and remain true to its purpose. Science has often proved traitor to its real purpose and has mixed two points of view, the descriptive and the normative, but by common

consent and agreement the scientist has come to take within his field only facts and to hand them back to the world as facts, not isolated and unrelated, but as united in most interesting ways. He gives the facts back to society purified and renovated of most of the crudeness which they possessed when delivered by common sense.

If we are to get a full account of our experience, what is needed more than common sense and science? The answer is—philosophy. It is the business of philosophy to do just what a great many people still try to force science to do, and that is to show the meaning and value of life. This, science can never do, any more than philosophy can rest satisfied with a descriptive account of the world. It is one thing to describe and explain; it is quite another thing to interpret and show the meaning and value of our experience for life as a whole. Science developes the one point of view and philosophy the other. They are not essentially different in their aims. The difference lies in the fact that science leaves the world as described and related phenomena, while philosophy begins with the conclusion of science as its data and passes on to give a fuller account of experience by showing the meaning of all this for life.

Let us briefly summarize the aim of science. Science by observation, correlation and classification of the facts of experience aims to render a complete and descriptive and explanatory account of the world of human experience. The account is descriptive rather than normative, for the reason that the conclusions relate to the world as it is, and not as it should be. For a fuller account of life we must turn to philosophy also, which considers the aims, purposes and values of human life.

The Background of the Modern Language Teacher

HINTS AND SUGGESTIONS.

LILIAN L. STROEBE, PH. D., VASSAR COLLEGE,
POUGHKEEPSIE, N. Y.

THE demands on the professional education of modern language teachers in this country have increased tremendously within the last ten or fiifteen years. Not only a speaking knowledge of the foreign language is demanded, but sound, first-hand information about the country itself is a prerequisite for effective teaching. But little has been done to give students and prospective teachers who specialize in French, German, Spanish, or any other language, definite instruction in the geography, the history, the political institutions, the educational system and the social and intellectual activities of the foreign country. In consequence, high school teachers are greatly handicapped in their work. So perhaps a few hints as to how to acquire such knowledge may be of use to some of them. A great number of teachers attend summer schools in order to gain just such information, and it is there especially that they find out that in order to acquire a real knowledge of the foreign country a few weeks of work in summer is not sufficient, and they feel the need of continuing such work throughout the year.

There are certain general principles which must be considered if teachers are to gain definite results from reading and studying on these lines. First of all teachers must have access to the original sources of information and they must not study their subject from compilations in the English language. The books must be written in the language of the country they describe, as teachers must keep up and improve their knowledge of the foreign language, and constant reading of foreign books is the best, and sometimes the only way, of doing it. Most teachers have read a few books about the foreign country in the English language, for

instance, the books in the collection, "Our European Neighbors," edited by H. W. Dawson. Some of those books, however, are most superficial and misleading. It is very necessary that the books should be well selected, so that teachers can gain reliable knowledge and information from them. They must be of a kind which can be understood by the general reader; they must not be too technical and they must not be too long and difficult, as a high school teacher is not, probably, a specialist in history or geography or art or any other subject, but is studying these subjects to acquire a good general knowledge of the foreign country. Books on geography, architecture and art should be well illustrated; the things he reads about should be before his eyes continually, otherwise the reading about pictures or buildings or landscapes is of little value.

Of the different aspects of the foreign country, geography and history are the most important and should be taken up first. Geography is to be taken in its widest sense, and includes the relation of physical features to living things, to industry, agriculture, etc. Following these subjects one might spend some time in the study of the constitution, government, administration and political life of the country in question, its school system, its universities, its art, newspapers, periodicals, daily life, etc. Such study cannot be done without a liberal supply of books, charts, pictures and other equipment. The greatest help toward a general survey of any of the subjects under consideration is a good encyclopedia. For French the new Larousse in eight volumes is very satisfactory. (Nouveau Larousse Illustré, Directeur Claude Auge, Librairie, Larousse, Paris.) For Spanish the "Enciclopedia Universale Illustrada Europeo-Americano" (Jose Espasa, Barcelona) seems best for our purposes. For German there are the two "Grosses Konversations-Lexikon," by Brockhaus and by Meyer. The same editors have also issued a smaller edition of their encyclopedia in two and three volumes, which are sufficient for a general orientation. But I have not been able to discover, either in French or in Spanish, anything so good and condensed as these short encyclopedias.

These large encyclopedias are expensive and few teachers are

able to buy many expensive books. However, sometimes the school is willing to buy books which will help toward the efficiency of their teaching force, and in many places the public library is glad to receive suggestions as to what books to buy. Many librarians spend large sums on reading material in foreign languages for the foreign-born population and would be willing to spend some money on books which teachers would like to have. Of course, every modern language teacher ought to own a reference library in the language he is teaching, and a few dollars spent every year for the accumulation of such a library are an excellent investment. Teachers might buy books together and form a little study club for one evening a week, discuss what they have read, and give reports on the different phases of the subject. The reading should be well planned and the discussion should be in the foreign language. In a larger city a teacher can often be found who has done considerable work along this line and who could conduct such a course, plan the choice of material for the reports and also make a few necessary corrections in the use of the foreign language.

The first subject to be taken up is geography, and the first step is a close study of the map; of the boundaries, the mountains, the rivers, the cities, etc. After this, economic facts might be studied, for instance, the agricultural products, the mineral wealth, the location of industries, the most important railroad connections, etc. Excellent suggestions for that kind of work will be found for French in the booklet, "The Roofed Square Paris Method," and for German in "A Sketch Map of Germany." Both pamphlets are published by the Cramer Publishing Co., Syracuse, N. Y. There is no such book available just now for Spain and South America, but it is very easy to follow the suggestions in those pamphlets in connection with the study of other countries. Good material for the study of South America will be found in the monthly bulletins of the Pan-American Union, Washington, D. C. The bulletin is published in a Spanish edition, and is splendidly illustrated and devoted to the progress and development of the twenty-one republics of the two Americas.

For France plenty of interesting information will be found in "La France, Géographie Illustrée" (Collection Larousse), and for

German in A. Sach, "Die Deutsche Heimat" (Waisenhaus, Halle). It is important that teachers should be familiar with the old provinces and divisions. In French, Picardy, Normandy, Brittany; in Spanish, Andalusia, Castile, Aragon, the Basque Provinces, are terms used constantly in history and in daily life. In connection with these old provinces students might devote some time to the study of peasant costumes and peasant houses. Another interesting chapter is the development of the Burgen and châteaux from the strongly fortified mediaeval castles to the more comfortable residences of the nobility in later times. There is a charming book of illustrations, "Deutsche Burgen und feste Schlösser" (Leipzig, Langewiesche), out of which the most characteristic ones could be chosen and studied. In French some time might well be spent on the châteaux region.

The study of geography is closely related to the study of history. In order to understand a foreign country teachers must know the main points of the historical development and have a more detailed knowledge of the most important periods, especially of the nineteenth and twentieth century. Perhaps the best plan is to study first one of the little manuals used in the schools abroad. For French, Ernest Lavisse, "La deuxieme année d'histoire de France" (Librairie A. Colin, Paris), can be recommended highly. For Spanish, Altamira y Crevea, "Historia de la civilisacione española" (Heredos de Juan Gill, Barcelona), will be found satisfactory. After having gained a general view of the historical development, some chapters about the most important periods in the larger historical works may be read. For French, the following books can be recommended: Ernest Lavisse, "Cours d'histoire de France," 2 vols. (Librairie Armand Colin, Paris); Albert Malet, "Nouveau Cour d'histoire de France," 2 vols. Both these books are used a great deal in the French licées and colleges. Another very readable history with good illustrations is V. Duruy, "Histoire de France," 2 vols.

In Spanish, R. Altamira y Crevea, "Historia de España y de la Civilisacion Española" (Heredos de Juan Gill, Barcelona), contains the best material, not only for history, but for the general development of Spanish civilization. Unfortunately the book does

not deal with the nineteenth century. There is a great need for a short manual of the history of Latin America in the Spanish language. No short and clear compendium has been written so far, at least I have not been able to find one. Brice's "Observations and Impressions of South America" have been translated into Spanish, and there are separate works about the history of the different republics, but they are all too detailed for our purpose. However, the short address of the Bolivian minister, Calderon, can be highly recommended. Calderon, Ignacio, "Bolivia," (Address delivered by the Bolivian minister under the auspices of the National Geographic Society, at Washington, D. C., printed in Spanish and English, London, 1907). In not more than twenty pages Calderon gives an excellent outline of the history and geography of Bolivia. It is very well put together and will be found useful reading. The address might well serve as a model in form and contents for reports and talks on the other South American states.

The constitution and administration of a country is a subject closely related to its history. Very short but clear and satisfactory outlines about the constitutions of Germany, France and Spain can be found in the valuable little books, "German Daily Life," "French Daily Life," "Spanish Daily Life" (Newson's Modern Language Series, New York).

Around these old castles the cities began to grow, and the study of the foreign cities, old and new, is perhaps the most interesting part of geography. For each city a few well chosen pictures and photographs must be on hand. To understand and describe a foreign city well some knowledge of architecture will be found a great help. A rapid general survey of the development of French architecture might be shown by the abbey churches of Mont St. Michel and St. Etienne and the cathedral of Avignon as the oldest forms. Then the cathedral of Bourges and Chartres, or Notre Dame de Paris, and the cathedral of Amiens, the churches of St. Ouen and St. Maclou at Rouen might give an understanding of the wonderful French Gothic, in its development from the early to the rayonnant and flamboyant period. The Tuileries, the Luxembourg, the town hall at Lyons, show the Renaissance archi-

tecture. The classical revival produces buildings like the Arc de Triomphe, the Arc de l'Etoile and the Madelaine, in Paris. In the same way, before studying the cities of Spain, one ought to become familiar with the Mosque of Cordova, the Alhambra of Granada and the Alcazar of Seville, as representative monuments of the Moorish style. The cathedrals of Toledo, of Burgos, of Seville, show the best that Gothic art has produced in Spain. The work of the early renaissance and plasteresque periods of ornamentation can best be studied in the city hall of Seville, the Alcazar of Toledo, and particularly the facade of the university of Salamanca. Of the late renaissance and the stern Herera style the Escurial is typical.

It is by no means a waste of time to study in detail some of those old cities which have preserved their mediaeval characteristics. Those old cities, with their moats, walls, gates, fortifications, and narrow, winding streets, are beloved by artists and poets, by historians and simple tourists, and in each country there are a few which still convey to the student the idea of what a mediaeval city really looked like. In France one imght choose either Carcasonne, Aigues-Mortes or Avignon; in Germany, Rothenburg, in Bavaria, preserves the charm of the middle ages better than any other city. In Spain, Toledo has kept its city walls, old houses and narrow streets. Illustrated books on those cities are not difficult to find. The French collection, "Les villes d'art célèbres," and "Petites monographies des grandes édifices de la France," both edited by Henri Laurens, Paris, give good illustrations and descriptions. Rothenburg has a beautifully illustrated monograph by Toni Bögner (München, Piper). Among the charming little Spanish books of the collection, "El arte en España," good pictures and good Spanish introductions can be found about La catedral de Burgos, La casa del Greco, Real palacio de Madrid, etc. The great temptation is to use books written in the English language, because these books happen to be well illustrated; but it is necessary and well worth while to find and procure books in the foreign language.

Certainly teachers ought to have a general idea about the organization of schools and universities in the foreign country. The

French system of education is absolutely centralized, and it is not difficult to get a clear idea of its underlying principles. In Germany each state has its own educational system, but there is little difference among them, and it is quite correct to speak of a German educational system. Both in France and Germany each of tht higher grades of schools issues every year circulars under different names which contain the course of study, the daily program, name and rank of teachers, the distribution of class work, and many other interesting details. Such pamphlets can easily be procured and they contain a great deal of interesting information for anybody who would understand the general system.

Another important subject is art. This study of art does not mean theoretical investigations into the principles of artistic reproduction, but it means for the teachers of modern languages a knowledge and an appreciation of a limited number of works, not more than two or three of each of the most important artists. As an outline and for reference purposes the collection of general histories of art published by Scribner can be highly recommended. They deal not only with the art of painting, but also with sculpture, architecture, and other minor arts. It is important to study some individual artists thoroughly, and there are plenty of inexpensive and charming books to be found. For Spain we have already mentioned the collection "El Arte en España" (Edicion Thomas, Barcelona). For France, "Les Grands Artistes" (Librairie Renouard, Paris), and for Germany, "Künstler Monographien" (Velhagen & Klasing, Leipzig), will be found very stimulating.

There are many other subjects which might be taken up, and planning out in detail such a course of study would fill a book. Let me only mention, last not least, the newspapers of the foreign country. To anybody who has a certain amount of knowledge of history, geography and the general conditions of the country, the reading of newspapers will give a real insight into the political and intellectual life of the foreign nation. Le Temps, Le Figaro, Le Matin, for France; El Nacional, El Correa, El Español, for Spain; La Nacion of Buenos Aires, El Mercurio of Chili, are well worth the attention of a modern language teacher.

American Notes—Editorial

Apropos to the movement for better salaries for teachers comes the suggestion that there should be a new effort on the teachers' part to make their work of more value to their employers. There is danger lest the discussion of the wage question should divert attention too much to the compensation side and obscure the necessary concomitant circumstance that a teacher's pay must be "for services rendered." It must be a *quid pro quo* or it will still be a bad bargain, no matter what changes may be made in the wage schedule.

When a teacher "gets a raise" it is a very good time to ask what return is he or she making for what is received. We dislike to say it— for we have on the whole a very exalted conception of the value, worthiness, and devotion of the average teacher to her work—but the fact is that there are some teachers who are more interested in "holding down" than in holding up their jobs. There are teachers—as their are individuals in other callings—who think that the world (meaning in the teachers' case the city or town where they teach) owes them a living, irrespective of any real fitness on their part to teach, any personal conception of the higher things involved in teaching, any worthwhile influence which they may be able to exert upon the physical, mental or spiritual welfare of their pupils. Have they not been for a year or two to the Normal School, and received their diplomas? Have they not been duly elected and appointed to teach? Are they not in their places day by day when the bell rings, though goodness knows they would rather be in any one of a thousand other places which they can think of? We all know of this type of teacher. She is a problem! Perhaps there is no greater, or at least more practically difficult problem to handle in the whole round of the Superintendent's, or the School Committee's duties, than she. The problem is a matter of consequence to the parents also, if they are thoughtful and take cognizance of their children's progress or retardation as they are passing through the public school course. One year under such a teacher may set back a given pupil one or more years in the completion of his course, when the fault is in no wise his but is chargeable wholly to an incompetent, untactful, superficial, or absolutely vicious teacher. Yet parents usually shrink from the unpleasant task of interference, which they know will mean trouble and notoriety. The Superintendent and the Committee also are all too apt to endure the situation, instead of curing it by heroic action.

We are glad to believe and to say most heartily that the situation described is exceptional. We admire the genuine consecration of the

vast majority of our public school teachers. We have for years written and pleaded in their behalf. We believe in them, admire them and are grateful to them for what they have done for ourselves, for their country and for the world. But for their sakes as well as for the sake of the children of the present, and the good of the schools, we suggest that they think seriously, soberly, conscientiously of the "for service rendered" clause on their pay envelopes as well as of the figures which define the amount contained therein; and that they strive earnestly to maintain a proper proportionate balance between the two.

The April "Bulletin to the Schools" published and sent out by the University of the State of New York contains an account of some remarkable instances of thrift in both city and country schools. Here are a few samples relating to Thrift Stamps:

School 52, Buffalo, has a registration of 1212 pupils and sold $14,854.50 last year. Principal C. N. Millard says, "We continue to combat gum-chewing, candy buying, and too much indulgence in moving picture shows by urging children who have money to buy stamps, and thus save for the future."

Central High School of Syracuse has 1500 pupils registered and sold $102,356.64. Principal Charles E. Harper says: "We attained this record by aiming for 100 per cent. school in the ownership of thrift stamps and later for 100 per cent. ownership of war-savings stamps on the part of every pupil and teacher, competition between roll-call rooms over the greatest per capita ownership of stamps. Later in the year we determined the total amount it was possible to reach and then worked for it."

Gertrude M. Wolfe, teacher of a rural school of 10 pupils in Ransomville, sold $130 in thrift stamps and war-savings stamps last year. She remarks that all the stamps were purchased by the pupils with money earned by them by working on farms in the community, selling old rubbers, papers, etc.

M. H. Traphagen, principal of Lincoln School, Mount Vernon, has 636 pupils and sold stamps last year amounting to $28,113.01. "This record was attained by the use of a penny savings stamp and W. S. S. in each classroom, competition between classes, the organization of a 'limit club,' and the excellent work on the part of the teacher."

We believe that such examples as these are not exceptional, but typical. They can be duplicated all over the United States. They illustrate the value of the American public school system, methods and results; and go far in answering and counteracting the influence of the blatant agitators, socialists and Bolshevikists, who are doing their best to undermine the established forms of Government.

SEX EDUCATION IN SCHOOLS

Resolutions adopted at a Conference of Educators in January, 1919, representing schools and colleges of Maryland, Delaware, Virginia and the District of Columbia.

WHEREAS, the development of ideals of physical fitness is essential to the better conservation of national vigor and must include knowledge of the principal facts of sex; and,

WHEREAS, extensive inquiries show that young people are not receiving sex information from wholesome sources, but for the most part from companions, and that the results of this information are generally harmful; and,

WHEREAS, a knowledge of the principal facts of sex and of right ideals is essential to an intelligent understanding of the fight against venereal diseases; and,

WHEREAS, a background of accurate knowledge and reverent attitude of mind is essential to a normal interpretation of sex problems;

Therefore, be it resolved that sex education should be included in the high school programs of the United States, and that in working out the place of sex education in the high school the following principles be recognized:

1. That sex education be given its normal place in relation to physical education, biology, physiology, hygiene, general science, and such other subjects in which it has a rational place.
2. That it is desirable that such essential matters as reproduction in a few typical forms of plants and animals, elementary facts concerning ductless glands, including sex glands, the true significance of physiological changes occurring during puberty and adolescence, the main facts concerning the cause, manner of spreading, and possible results of gonorrhea and syphilis, and the fundamental facts concerning heredity, be taught during the first year of high school.
3. That the courses in physical training, biology, physiology, hygiene, or general science, throughout the four years of high school, and especially during the last three years, should make definite provision for continuing the program.
4. That, as soon as properly prepared teachers are available, a course in domestic science for girls in either the junior or senior year be provided, which will include a study of home nursing and sanitation, maternity, and care of the baby.
5. That, as soon as properly prepared teachers are available, a corresponding course for junior or senior boys be provided.

Be it further resolved that the universities, colleges, and normal schools be urged to prepare teachers who will be equipped to present

the facts and ideals of sex in their relation to the subjects taught in secondary schools, as previously outlined.

Be it also resolved that the United States Public Health Service and the United States Bureau of Education be requested to appoint a committee which will:

1. Cooperate with other organizations for the purpose of making the work in sex education effective, and which will
2. Prepare a manual to assist administrative officials and teachers in providing for courses as above suggested.

There is a growing apprehension of the evils that menace the future and an apparent desire to avert trouble by means of preventive measures. It is coming to be recognized that by making good Americans of all of the Nation's children, the alien problem of the future will be practically solved.

The easiest way to teach American ideals and loyalty is to begin with the little child; therefore the United States Bureau of Education and the National Kindergarten Association, working together from 8 West 40th Street, New York are urging the immediate introduction of the kindergarten into all public schools as a vital Americanizing agency.

As a result of their efforts, Texas and California are conducting intensive campaigns, and letters from persons in every state show an increasing interest in securing this educational advantage for the children of their communities.

"EDUCATION," according to Nicholas Murray Butler, is a gradual adjustment to the spiritual possessions of the race, with a view to realizing one's own potentialities and to assisting in carrying forward that complex of ideas, acts, and institutions which we call civilization. Those spiritual possessions may be variously classified, but they certainly are at least five-fold. The child is entitled to his scientific inheritance, to his literary inheritance, to his aesthetic inheritance, to his institutional inheritance, and to his religious inheritance. Without them all he cannot become a truly educated or a truly cultivated man. . . .

Progress based upon culture is surely progress; without culture and all that the word is here held to signify, progress is only an empty word.

Book Reviews

THE SHORTER BIBLE. The New Testament. Translated and arranged by Charles Foster Kent. Collaborators: Charles C. Torrey, Professor in Yale University, Henry A. Sherman, Department of Religious Literature, of Charles Scribner's Sons, Frederick Harris, International Committee of Y. M. C. Associations and Ethel Cutler, Religious Work Secretary of National Board of the Y. W. C. Associations. New York. Charles Scribner's Sons, Publishers. Price 1.00, net.

The world has waited long for this "busy-man's Bible"—for this volume on The New Testament is to be shortly followed, we understand, by another on The Old Testament. This first volume in less than three hundred of pages printed in good sized type, gives in narrative form, in "simple, dignified, modern English," the essence of the entire New Testament. The universal significance of Jesus' birth, the thrilling incidents of his life, the great outlines of his teachings about God and man, man and society, man and his neighbor, the essentials of true happiness and prosperity; the dramatic and significant acts of the Apostles, Paul's journeyings and his letters, John's gospel and his revelations in regard to the future—all are told in a simple, straightforward, natural way, without confusing repetitions. It is as interesting as a novel and as reverent throughout as the Prayer book. It will be read through from beginning to end by most of those who open it at all; but it is so clear in its arrangement and language that any one can find at once almost anything he wants in the teachings of Jesus or the Apostles on almost any subject. It is distinctly a busy-man's Bible and of such convenient, compact form that it can be slipped into the pocket to be read upon the train or in the summer camp or wherever the busy reader may chance to find a leisure moment. What a boon this little book will be to the Sunday School worker, to the commercial traveler, to the soldier and sailor, bringing to each a message of truth and of life, a consolation for present loneliness, hardship or grief, a promise for the future! What a lovely Christmas present for an absent friend! What a *vade mecum* for a beloved son or daughter! The authors have been peculiarly happy in their translation of the original Greek into English and in their inclusions, eliminations and condensations. Nothing that is relevant and vital seems to have been left out.

F. H. P.

HUMAN NATURE AND ITS REMAKING. By William E. Hocking, Ph. D., Professor of Philosophy, Harvard University. Yale University Press. Price $3.00 net.

It would take a whole number of EDUCATION adequately to review this masterly volume. The author modestly says that since books

are no longer supposed to contain final truth "no book need to apologize for being unripe." He adds that what he has attempted is, "not to close discussion, but to open it." His work is "the work rather of the quarryman with his blasting powder than of the sculptor with his chisel." In these expressions the reader receives an impression that is held, as he reads this book through, from the first chapter to the last. With scholarly thoroughness but with equal carefulness not to pass beyond the boundaries of known fact or truth the author discusses man and his problems. Human character, why it is and should be an artificial product, the experience of religion, of politics, of the social sciences, the changes in human nature which are possible and desirable, the natural man, the instincts, the conscience, experience, society, laws, education, the right of rebellion, punishment, art and religion, Christianity—all these are but suggestions of the subjects discussed with wonderful erudition, insight, sympathy, and logical consistency. Nowhere dogmatic, always groping after truth and clear in its statement when found as well as honest in confession of inability to find or state the final truth when that does not appear, the author carries the reader forward in a fellowship of thinking that makes one conscious of new strength and new insight when one closes the volume. The book is timely in view of the rejection of the German view of human nature and life. It is constructive in the best sense. F. H. P.

MODERN PUNCTUATION. ITS UTILITIES AND CONVENTIONS. By George Shummey, Jr., Associate Professor of English, North Carolina State College. Oxford University Press, American Branch. Price $1.50.

This is probably the most serious treatment of the subject of punctuation that has appeared in America to date. It is thoroughly logical and reflects the more general usage as shown in the best books and leading standard periodicals of the times. Chapter VIII. upon "The Individual Structural Points, and Points in Combination" should be carefully studied by everyone who ever writes anything intended for the public eye.

THE GERMAN SCHOOL AS A WAR-NURSERY. Translated from the French. By V. H. Friedel. Introduction by M. E. Sadler, Litt. D. Macmillan. Price $1.30.

Gives an admirably clear conception of the contribution of Education to the conditions making for War, in the German nation before and during the recent world conflict. Whoever would understand the attitude of the Germans toward the war before, during and since the actual fighting, would do well to read this volume.

THREE YOUNG CRUSOES. Their life and adventures on an Island in the West Indies. By William A. Murrill, Ph. D. Published by the author at Bronxwood Park, N. Y. Price $1.50.

A good story which will interest the average boy who is old enough to read; and at the same time valuable information, and inspiration, is imparted in reference to fauna, flora, human life and customs—in short most everything of interest in the West Indies.

We acknowledge the receipt of the following volumes in the School Efficiency Series, published by The World Book Company, Yonkers, N. Y.

I. COMMERCIAL TESTS AND HOW TO USE THEM; II. RURAL EDUCATION AND THE CONSOLIDATED SCHOOL; III. PROBLEMS IN STATE HIGH SCHOOL FINANCE. These are by Sherwin Cody, Julius Bernhard Asp and Julian Edward Butterworth, respectively. "Kraft" binding. Price 99 cents each.

HEALTH EDUCATION IN RURAL SCHOOLS. By J. Mace Andress, Ph. D., Head of the Department of Psychology and Child Study, Boston Normal School. Houghton Mifflin Company. Price $1.60.

An adequate treatment of a subject which lies at the foundation of all true education. "Healthy Children are the Greatest Wealth of the Nation," is the motto under the frontis-piece. "Why Health should be the First Aim of the School" is the title of the first chapter. While dealing especially with the educational phases of the subject and aiming to supply teachers with information and suggestion to aid them in successfully teaching their pupils the principles of clean, healthy and happy living, parents and the general reader may find much interest and profit in these carefully worked out and attractively illustrated chapters. The author is an educator with a more than local reputation.

NATIONAL GOVERNMENTS AND THE WORLD WAR. By Frederic A. Ogg and Charles A. Beard. The Macmillan Company. Price $2.50.

The world war is shown, in this comprehensive volume, to have been a life and death struggle between two great schemes of government—autocracy and democracy. The author thinks that while autocracy has fallen for the time being, we cannot regard the victory as permanent until we have brought intelligence and sanity into the great tasks which have now been assumed by the democratic nations; and have demonstrated the ability of the people to manage affairs. The volume "undertakes to show what the heritage and genius of the principal peoples lately engaged in the World War have meant in the shaping of contemporary political institutions and ideas.

THE MANAGEMENT OF A CITY SCHOOL. By Arthur C. Perry, Jr., Ph. D. The Macmillan Company. Price $1.80.

The author has had a wide experience in administering educational affairs and is the author of several books on school problems. As Dis-

trict Superintendent in New York City he saw at first-hand most of the phases of City School supervision. His thoughtful presentation of the underlying principles of administration in their relation to the public, the school officials, the teachers, the pupils and the state and nation, will enable all readers of his volume to comprehend the greatness of the task of supervising a city's schools. Those who aspire to secure employment of this kind—be they students in schools of education or already engaged in supervisory work in smaller towns, will find these chapters of greatest value and interest.

SURVEY OF THE ST. LOUIS PUBLIC SCHOOLS. In three volumes. By Charles H. Judd, Director; H. C. Morrison, W. R. MacCornack, F. B. Dresslar, S. O. Hartwell, E. A. Peterson, George A. Mirick, J. F. Bobbitt, William S. Gray, Frank N. Freeman, Walter F. Dearborn, A. D. Freeman, and Harold O. Rugg. (The third three volumes in the Educational Survey Series.) Cloth $2.25 per volume. World Book Company, Yonkers-on-Hudson, New York, Publishers.

This is the most significant and important of the many surveys of public school systems undertaken since that of New York City in 1913. This is particularly true for both size and importance of the school system surveyed and for the thoroughness and efficiency of the work. The volumes will be particularly useful to public school administrators and every up-to-date school teacher. The volumes are as follows: Volume I., Organization and Administration. Volume II., The Work of the Schools. Volume III., Finance.

EASY SPANISH READER. By Joel Hatheway (High School of Commerce, Boston, Mass.) and Eduardo Bergé Soler, Instructor in Spanish in the same school. Macmillan. Price $1.10.

Furnishes a large amount of easy reading to the many students of Spanish who are preparing to enter commercial life. Such books are needed. Such studies are practical and essential, in view of the large commerce which is assured between North American and South American countries.

A FIRST BOOK IN SPANISH. J. P. Wickersham Crawford, Ph. D. Macmillan. Price $1.20.

Well adapted to give the pupil the fundamental principles and a sufficient working knowledge to enable him to speak, read and write the language. One of the best text books, covering this subject, that has come to our notice.

A LABORATORY COURSE IN PHYSICS OF THE HOUSEHOLD. To accompany Lynde's Physics of the Household. By Carleton John Lynde, Ph. D. Macmillan. Price 90 cents.

This useful handbook explains the principles of levers, weights and measures, heat, electricity, light, sound, etc. as these bear upon household usage and economics. The chapters are well illustrated. The experiments impress the theoretical and practical facts upon the consciousness of the student and will make for scientific and therefore satisfactory housekeeping and homemaking.

SCIENCE OF PLANT LIFE. A High School Botany Treating of the Plant and Its Relation to the Environment. By Edgar Nelson Transeau, Professor of Botany, Ohio State University. In New World Science Series, edited by John W. Ritchie. Cloth. Illustrated. ix.+336 pages. Price $1.48. World Book Company, Yonkers-on-Hudson, New York.

The author of this volume believes that the school's work in botany should have in view a practical end and that it should serve as a basis for agriculture, horticulture and forestry. This conception seems proper in institutions supported by the state and having in mind the common good. Every citizen should have at his command just such knowledge as is contained in this book. It is an excellent text, which we commend to the attention of high school principals.

Periodical Notes

THE OUTLOOK for April 2 has a remarkably fine group picture of Lloyd George, Clemenceau, General Foch, Orlando, and Sonnino. It helps in the understanding of current history to visualize these great leaders.

THE AMERICAN JOURNAL OF SOCIOLOGY for March contains a sane and suggestive discussion by Prof. David Snedden, of Teachers College, Columbia University, on the "Probable Economic Future of American Women." He describes the conditions which presumably should and will underlie programs of vocational education for girls and women. THE JOURNAL OF THE FRANKLIN INSTITUTE contains a timely article on "The Visibility of Airplanes," by M. Luckiesh. Educators will be interested in the illustrated article by U. Roy Sewrey in MANUAL TRAINING MAGAZINE for April, on "How Rockford, Ill., is Meeting the Industrial Education Problem." GOOD HEALTH for April has a good article by Emma Frances, M. S., on "The Value of Green Foods."

THE CENTURY FOR MAY will make the readers' hearts burn with the joy and pride of victory as they read Col. R. H. C. Kelton's personal testimony about "The Miracle of Chateau-Thierry."